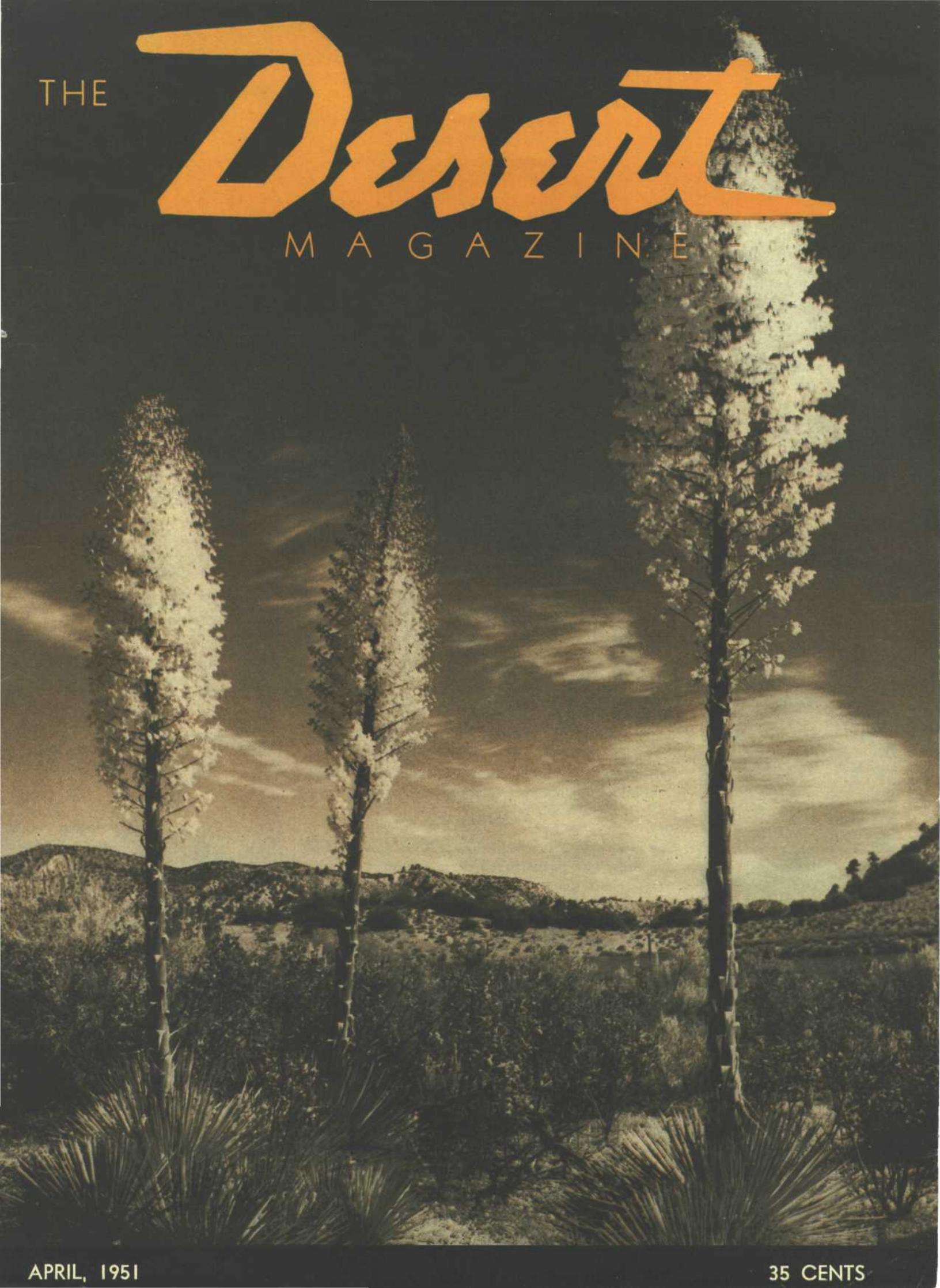
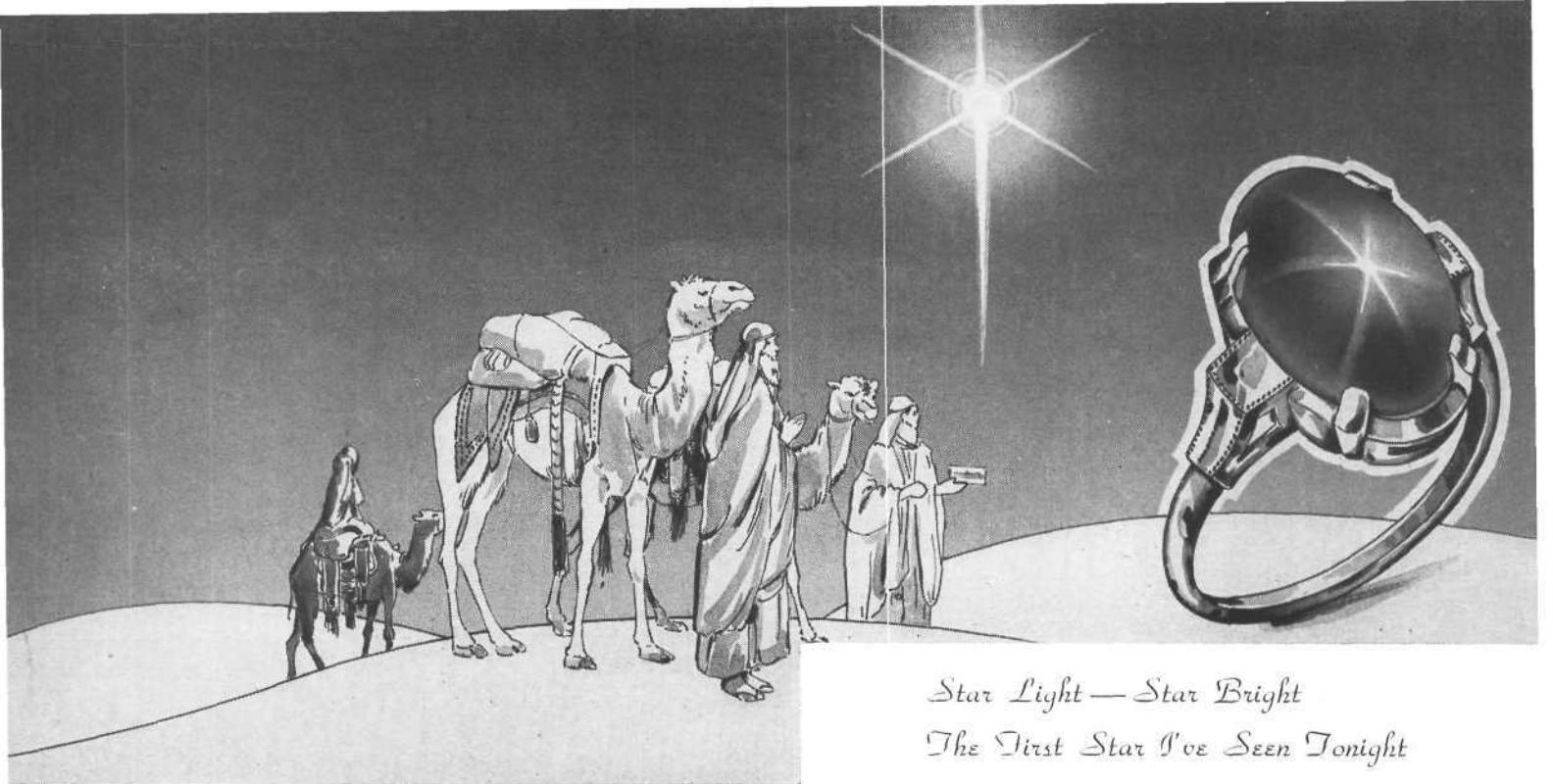


THE

# Desert

MAGAZINE





#### GIVE HER SOMETHING TO WISH BY

This lovely STAR SAPPHIRE\* or STAR RUBY\* ring makes an IDEAL GIFT for Birthdays and Anniversaries. Throughout the year it is a daily reminder of your thoughtfulness. No gift could be more appreciated.

\*NOTE: These are doublets made from genuine synthetic Sapphire or synthetic Ruby showing a strong star under a single light source such as sunlight or an incandescent lamp.

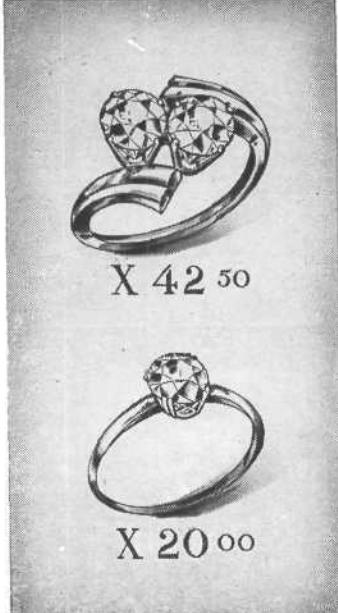
*Star Light — Star Bright  
The First Star I've Seen Tonight*

#### 14-CARAT SOLID YELLOW GOLD RINGS

... as shown above, set with an 8 by 10 mm. (1 in. equals 25 mm.) BLUE STAR SAPPHIRE\* or RED STAR RUBY\* made to your individual finger size.

\$23.50 plus 20% Federal Tax

SAME RING but set with a 10 by 12 mm. BLUE STAR SAPPHIRE\* or RED STAR RUBY\* made to your individual finger size. \$26.50 plus 20% Federal Tax.



#### MODEL X4250

A 14-Carat Yellow Gold diagonal shank with Palladium tops mounts two  $\frac{3}{4}$ -carat TITANIA RAINBOWS. Price includes sizing.

\$42.50 plus 20% Fed. Tax

#### MODEL X2000

Your choice of a 14-Carat Yellow or White Gold shank with a Palladium top mounting a TITANIA RAINBOW of approximately 60/100 carats. Price includes sizing. \$20.00 plus 20% Fed. Tax

#### YOU WILL BE WEARING RAINBOWS

When you wear jewelry set with TITANIA. This new wonder material is a synthetic titanium oxide which has a greater brilliance than the diamond. Facet cut round gems of synthetic TITANIA have five times more ability than the diamond to break light into its component colors producing a magnificent RAINBOW EFFECT.

The two rings illustrated, Models X4250 and X2000, are but a few of the many rings that may be purchased. A large variety of rings and earrings may be seen at our store or seen in our free illustrated booklet. Your old ring mountings can be repaired and set with a lovely gem of synthetic TITANIA. Hundreds of satisfied customers have written to tell us how pleased they were with this new synthetic gem. Here are a few typical remarks from customers' letters.

"Received the ring of Rainbow TITANIA. It's beautiful, far beyond what I expected."

"The Titania RAINBOW is ALL YOU CLAIM IT TO BE. The ever changing colors are beautiful to watch. My wife was very, very pleased and it excites the curiosity and admiration of everyone who sees it."

See Page 53 October, 1950, Reader's Digest for an interesting story about Titania.

The 1950 Revised Edition of Griege's "Encyclopedia and Super-Catalog of the Lapidary and Jewelry Arts" \$1.00 per copy

This is a 192-page Book 8½ x 11 inches in size. There are at least 6 pages of instructive articles by authors of national fame. There are new articles by EMIL KRONQUIST and LOUI WIENER on jewelry making. The 1 page article on jewelry casting by the LOST WAX METHOD using the new KERR HOBBYCRAFT CASTING UNIT is alone worth \$1.00. "ROCK DETECTION SIMPLIFIED" by Mr. E. V. Van Amringe with illustrations and charts helps you to identify your field trip discoveries. Two excellent field trips are mapped.

Everything you need in MACHINERY, TOOLS, SUPPLIES AND MATERIALS is illustrated, described and priced for your convenience.

VISIT OUR SHOP AND SECURE YOUR COPY OF THIS UNIQUE BOOK. Sent postpaid in U.S.A., its territories and Canada for only \$1.00.

#### ONE CUSTOMER WRITES:

"Indeed it is a super catalog and I don't know how I ever got along without it. People don't know what they are missing by not availing themselves of such an opportunity. They should write for it at once."

## DESERT CALENDAR

Mar. 30-31-Apr. 1—Coachella Valley Annual Rock Show, Fair Grounds, Indio, California.  
 Mar. 31-Apr. 1—Sierra Club Natural Science camping trip to Cottonwood Springs, California.  
 Mar. 31-Apr. 1—Imperial Valley Gem and Mineral Society and Lapidary Guild annual Rock Show, El Centro, California.  
 Apr. 1—Dedication of Desert Shrine, 11 a.m., Desert Magazine Pueblo, Palm Desert, California.  
 Apr. 1—Second annual Grand Prix sponsored by Sport Car Clubs, Palm Springs, California.  
 Apr. 1—Saddle Club Horse Show, Wickenburg, Arizona.  
 Apr. 1-4—Ladies Annual Invitational Golf Tournament, O'Donnell Golf Course, Palm Springs, California.  
 Apr. 2-8—Country Club Invitational Golf Tournament, Phoenix, Arizona.  
 Apr. 5—Festival of Arts Mexican Fiesta and Sunset Dedication Ceremonies, Tucson, Arizona.  
 Apr. 6—Festival of Arts Folklore Night, featuring Alan Lomax, Tucson, Arizona.  
 Apr. 6-7—Arizona Educational Association Conference, Tucson, Arizona.  
 Apr. 6-8—Grubstake Days, sponsored by the Chamber of Commerce, Yucca Valley, California.  
 Apr. 6-8—Salt River Valley Championship Skeet Shoot, Papago Park, Phoenix, Arizona.  
 Apr. 7—Desert Circus, Western Show, Parade and Band Exhibition, Palm Springs, California.  
 Apr. 7-8—Sierra Club Camping trip to Anza Desert State Park, California. Hikes up Whale Peak and Granite Mountain.  
 Apr. 7-9—Long Beach Mineral and Gem Society Annual Rock Show in conjunction with Hobby Show, Municipal Auditorium, Long Beach, California.  
 Apr. 8—Play Day at White Sands National Monument, New Mexico.  
 Apr. 8—Festival of Arts Southwestern Dance Drama, Tucson, Arizona.  
 Apr. 8—Los Bandoleros trek to Castle Dome mining district, Yuma, Arizona.  
 Apr. 9-13—Desert Caballero Ride, Wickenburg, Arizona.  
 Apr. 13-15—World's Championship Rodeo with Parade, Phoenix, Arizona.  
 Apr. 14-15—Sierra Club Camping trip to Valley Wells, California. Tour American Potash and Chemical Corporation plant, Trona.  
 Apr. 16—Invitational Golf Tourney, Country Club, Wickenburg, Arizona.  
 Apr. 20-21—Eastern New Mexico University Rodeo, Portales, New Mexico.  
 Apr. 22—Apple Blossom Festival, Farmington, New Mexico.  
 Apr. 27-29—Lion's International district convention, Palm Springs, California.  
 Apr.—Exhibition of southern Utah paintings by Conrad Buff, Southwest Museum, Highland Park, California. Daily except Mondays, 1 to 5 p.m.



Volume 14

APRIL, 1951

Number 6

COVER	YUCCATIME. By Josef Muench, Santa Barbara, California
CALENDAR	April events on the desert . . . . . 3
POETRY	Cactus Colors, and other poems . . . . . 4
ADVENTURE	Summer Journey on the Devil's Road By GCDFREY SYKES . . . . . 5
FIELD TRIP	Geodes on an Old Silver Trail By HAROLD O. WEIGHT . . . . . 7
TRUE OR FALSE	Test of your desert knowledge . . . . . 12
PERSONALITY	Desert Botanist of Tucson By WILSON MCKENNEY . . . . . 13
NATURE	Dipo—of the Desert Sands By EVALYN SLACK GIST . . . . . 15
SCIENCE	Off Limits to the Public By DONLEY LUKENS . . . . . 16
INDIANS	Attaki Spends His Poker Winnings By SANDY HASSELL . . . . . 17
LETTERS	Comment by Desert's Readers . . . . . 19
DEDICATION	"In Quest of Peace and Beauty" . . . . . 20
PHOTOS	Pictures of the Month . . . . . 21
LOST MINE	Pedro's Lost Mine By FRANK BECKWITH . . . . . 22
MINING	Current News of Desert Mining . . . . . 24
NEWS	From here and there on the desert . . . . . 25
CONTEST	Prize announcement to Photographers . . . . . 30
HOBBY	Gems and Minerals . . . . . 31
LAPIDARY	Amateur Gem Cutter, By LELANDE QUICK . . . . . 35
BOOKS	Reviews of Southwestern Literature . . . . . 37
COMMENT	Just Between You and Me, By the Editor . . . . . 38
WILDFLOWERS	Forecast for April . . . . . 39

The Desert Magazine is published monthly by the Desert Press, Inc., Palm Desert, California. Re-entered as second class matter July 17, 1948, at the post office at Palm Desert, California, under the Act of March 3, 1879. Title registered No. 358865 in U. S. Patent Office, and contents copyrighted 1950 by the Desert Press, Inc. Permission to reproduce contents must be secured from the editor in writing.

RANDALL HENDERSON, Editor BESS STACY, Business Manager  
 MARTIN MORAN, Circulation Manager E. H. VAN NOSTRAND, Advertising Manager

Los Angeles Office (Advertising Only): 2635 Adelbert Ave., Phone NOrmandy 3-1509  
 Unsolicited manuscripts and photographs submitted cannot be returned or acknowledged unless full return postage is enclosed. Desert Magazine assumes no responsibility for damage or loss of manuscripts or photographs although due care will be exercised. Subscribers should send notice of change of address by the first of the month preceding issue.

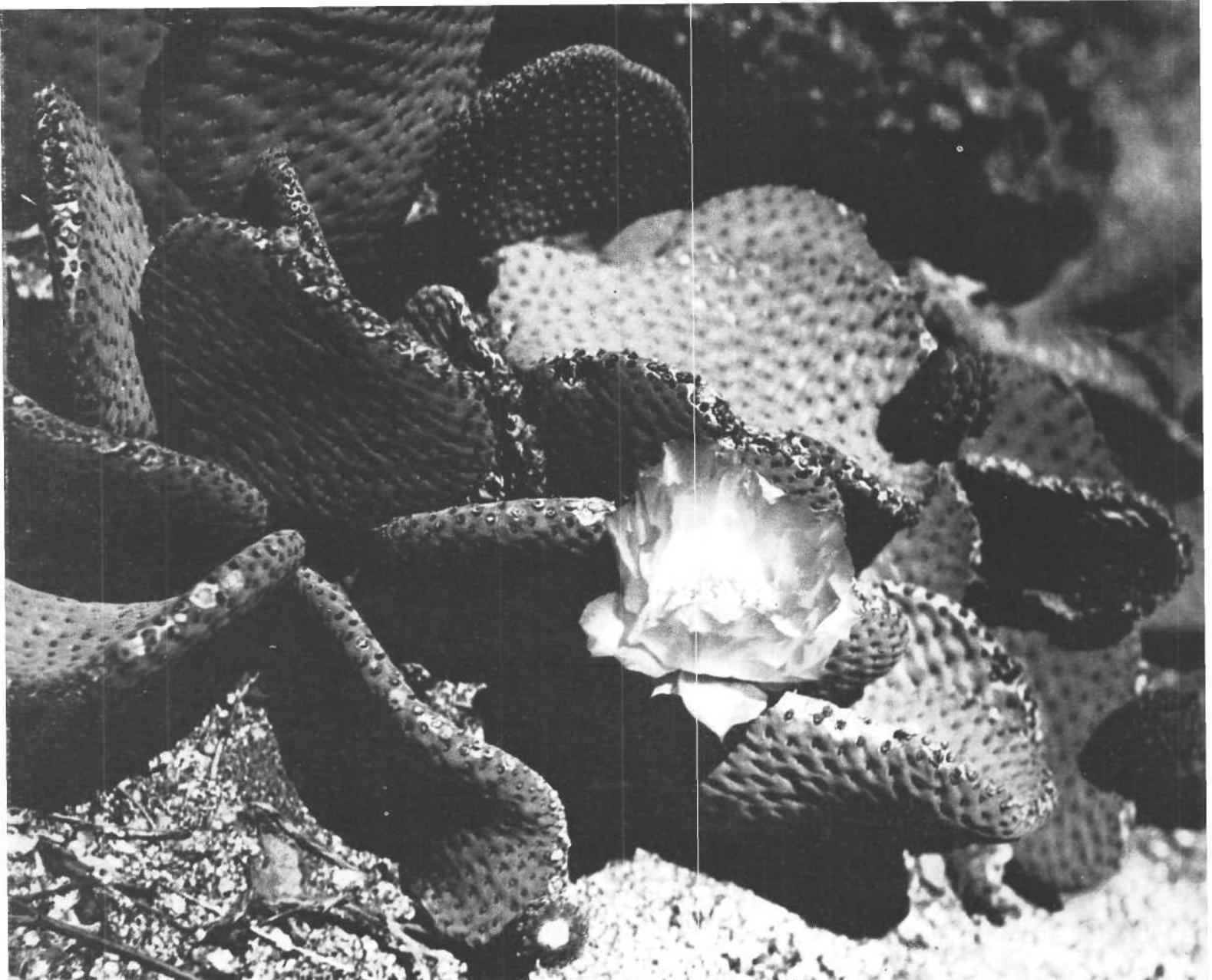
### SUBSCRIPTION RATES

One Year.....\$3.50 Two Years.....\$6.00

Canadian Subscriptions 25c Extra. Foreign 50c Extra

Subscriptions to Army Personnel Outside U. S. A. Must Be Mailed in Conformity With  
 P. O. D. Order No. 19687

Address Correspondence to Desert Magazine, Palm Desert, California



### NO GHOSTS

(Contributed)

Desert Hot Springs, California  
Of course there are no ghosts  
No haunted houses, no!  
And yet I know a haunted house where  
cactus grows  
That faces on the mountain high and desert  
low  
Where scent of noonday sun on greasewood  
Stirs the ghost of you.

For you are there, in every room  
In quiet, brilliant moonlight  
Or angry, sandfilled desert air.  
You're there  
Your hand is in the wind that blows my  
hair.

### EACH TO HIS NEEDED PATH

By AMY VIAU

Santa Ana, California  
I cannot take the path of stars,  
And would not if I could;  
For stars belong to space and sky—  
I belong where men have stood  
Like a bud of flame a star goes forth  
On its pathway circling high,  
I must go forth on a base of earth  
With hills and trees near by.  
A star must trail through the span of night  
In the air with the sky around,  
But I must walk on solid leagues  
Of earth with its firm ground.

### *Cactus Colors*

By GRACE BARKER WILSON

Kirtland, New Mexico

One brilliant, gaudy hour the cactus stains  
The desert waste to rival rainbow hues.  
Scarlet and yellow, palest green and blues  
Are there along the wind-blown, sandy lanes.  
And, scattered o'er the sagebrush covered  
plains  
Gay polka dots in showy patterns lose  
Themselves in the gray distances. Time  
strews  
Again his blight, and only sand remains.

### RELEASE

By SIBYL J. LAKE

Dumas, Texas

Soon now, I'll leave the wailing sirens far  
behind.  
I shall not miss the urban lights and noise,  
Nor shall I mind no running water, instantanous heat;  
For soon I shall be going where sky and  
desert meet.

The desert sun shall warm my nature-loving  
heart.  
The mountain streams shall cleanse me,  
and apart  
From that, I'll know the peace that wells up  
from the friendly sod,  
And softly falls, like benediction from a  
loving God.

### BETROTHAL

By ELIZABETH COBBOLD  
Los Angeles, California

You who love the desert,  
Can you yet take its pulsing, mighty heart  
Unto your own?  
You who love the desert,  
Can you now feel that distant life apart,  
That undertone,  
That purpling veil, and with the vision start  
Wedlock alone?

### *Pathway*

By TANYA SOUTH

Who dares the starry heights to climb  
In following his dream,  
Where neither age nor self nor time  
Are to the soul supreme,  
Where Love and Light and Truth are  
worth  
The very sum of all,  
And each new spiritual birth  
Is ever highest goal,  
Him follow, as the Pathway laid  
For your own feet to tread.  
And all the lesser things shall fade  
As you climb on ahead.

# Summer Journey on the Devil's Road

By GODFREY SYKES

**E**ARLY IN the year 1699, and immediately following a period of exceptionally heavy winter rains in northern Sonora, that remarkable and energetic missionary-explorer, Father Eusabius Kino, pioneered a northwesterly route toward the Colorado River from the little outlying settlements along the Magdalena, which in after years acquired an unenviable reputation as "The Devil's Road."

In making the journey through this previously unexplored region, and aside from the more serious matter of converting and baptizing any Indians whom he might encounter, the good Father appears to have been intent upon the solution of two problems. First, whether Lower California, where he had already done some missionary work, was an island, as the maps of that period generally showed it, or was

in reality a peninsula, and second, to learn the source of the beautiful "blue" shells, of which he had seen many among the Indians of Sonora.

His party, under Indian guidance, reached the Colorado River at the mouth of the Gila in due course and he satisfied himself as to the continental status of Lower California, although whether he settled the matter of the shells upon this occasion is not quite clear. At all events the route over which the Indians had guided him proved to be the most direct route between Sonora and California and during the following 170 years it was used by thousands of travellers bound for the fertile valleys and gold-bearing streams of the new El Dorado.

Owing to the scarcity of feed and almost total lack of water, the journey across the desert between Sonoyta and

the Colorado was greatly dreaded during these gold-rush days, and with good reason, for hundreds, or according to some estimates, thousands, of unfortunate travellers, poorly equipped or ignorant of the dangers of desert journeying, lost their lives there during that hectic period, and the ill-omened name *El Camino del Diablo* which was now generally applied to it was fully justified.

The route was practically abandoned in the early 'sixties, when the longer but less hazardous road down the Santa Cruz and Gila Valleys was improved, and has remained so until quite recently. U. S. Border-Patrol, Immigration, and Customs officials now make use of it on the Arizona side of the border, which it closely parallels. Even with modern methods of communication, however, a number

*The author and the Studebaker car he was driving on the Devil's Road when the incidents of this story took place.*





*A recent picture of the sand encountered along El Camino del Diablo between Sonoyta and Yuma.*

of lives have been lost on this highway through breakdowns, panic, and thirst, and the route as a whole is most emphatically a hazardous one for inexperienced travellers.

Twenty-five to thirty years ago the Desert Laboratory of the Carnegie Institution of Washington, with which I was then associated, was conducting a series of climatic investigations in Southern Arizona and Northern Sonora by means of long-period rain-gauges, which are essentially copper containers surmounted by measuring funnels. A small quantity of oil is poured into the container when it is placed in the desired situation, and this prevents evaporation of whatever rainwater the instrument may have captured, until such time as it may be visited for inspection. These simple devices, left undisturbed, provide a fairly accurate record of the rainfall if visited at six or twelve-month intervals.

A series of these gauges was strung along El Camino del Diablo between Sonoyta and Yuma and it was part of my work to make periodic inspections of these gauges, and keep the records of rainfall.

In the course of one of my periodic investigations of this group I started alone from Tucson in a heavy touring car of that era on July 22, 1925, my purpose being to visit, empty and recharge with oil, the gauges placed between Ajo and Yuma.

My car was equipped, as most of our cars still were at that time, with the old-fashioned, high pressure, narrow-tread tires which required a special technique for working through sand. We used to deflate them until we got sufficient bearing to give us

traction, shovelling out a track through the heavier drifts, and spreading brush, if any was available, in front of the rear wheels. If the sand was deep and soft, plenty of hard work was involved.

The day I speak of proved to be an exceptionally warm one, the noon and afternoon temperatures hovering between 112 degrees and 115 degrees. Recent winds and long continued dry weather had piled the sand in drifts and windrows along the most troublesome part of the journey, on to the Pinacate plateau, and I realized as I approached it that I was in for a strenuous afternoon.

Having been accustomed to observing facts and incidents from a scientific angle during most of my adult life, I considered this would be an excellent opportunity for observing the combined effects of exceptionally high temperature, heavy physical exertion and absence of cooling drinks, upon the human organism, with myself in the role of guinea-pig. So I began to take notes, and tackled the sand drifts.

Taking my own temperature was out of the question, although I had a clinical thermometer with me, with the surrounding air temperature at about 112, but I noted my pulse, which stood at 72 when I began shovelling and ranged upward to a peak rate of 145 after a particularly strenuous half hour. My age at that time was 64, and while a pulse rate of 72 may be considered as about normal for a man of that age, 145 is undoubtedly rather high. I approached the recognized danger point of a dry skin and labored breathing twice during the early afternoon but was able to avert collapse on both occasions by taking short rests in the

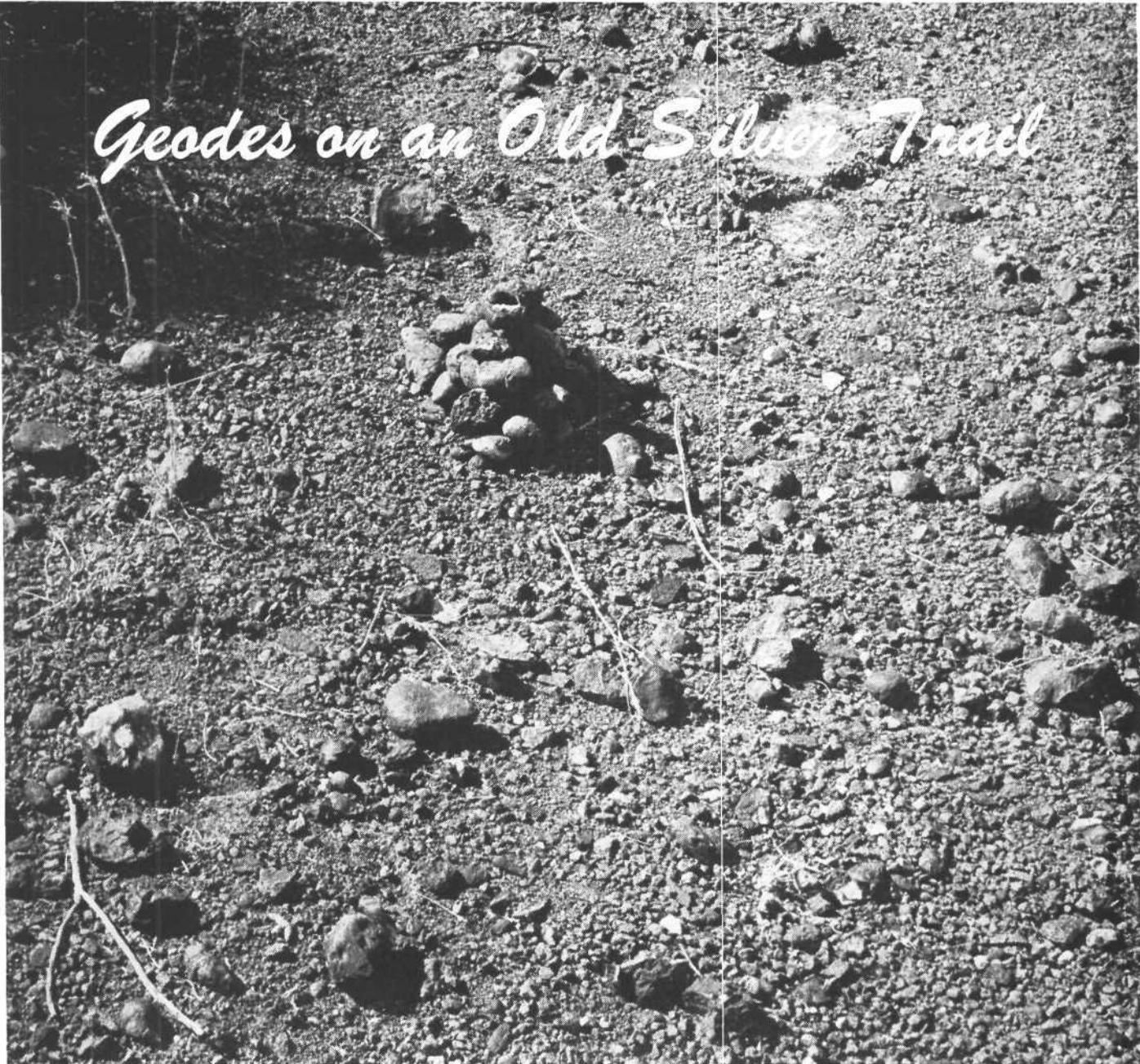
shade of the car. The water in my canteen was quite hot—about 95—and I used it very sparingly, principally for rinsing out my mouth in the Mexican manner.

I got through the sand by about four o'clock and did not have much more trouble in reaching the Tinajas Altas by dusk, and went on to Yuma the following morning. I then found that I had lost 14 pounds in weight during the preceding afternoon—principally, of course, through de-hydration of my tissues, but as I recall the circumstances of the next day or two, I think I must have regained most of the lost pounds by the amount of water I drank.

Autoists of the present day, driving over paved or graded roads upon modern balloon tires, perhaps do not fully realize what we pioneers in the auto game had to contend with 25 or 30 years ago in cross-country driving. We usually had inadequate engine power and the tires we drove upon were generally high pressure fabric ones that wore out, blew-out and punctured under the slightest provocation. It was, nevertheless, a fascinating occupation in that it had the elements of exploration, chance, and faith in good luck as incentives.

I was a veteran driver in cross-country work even at the time of this heated trip over the Devil's Road, with nearly 20 years of experience in desert work, and I had occasion to drive over it many times afterwards, without experiencing any particular trouble. This journey has, nevertheless, lingered in my memory as an instance of what could happen in the old days—and sometimes did.

# Geodes on an Old-Silver Trail



*In some places the nodules and geodes—mostly small in size—from less than an inch to two or three inches—litter the ground. The pile, center, was collected from an area of a few square feet, and more remain in the foreground.*

By HAROLD O. WEIGHT

Photographs by the author  
Map by Norton Allen

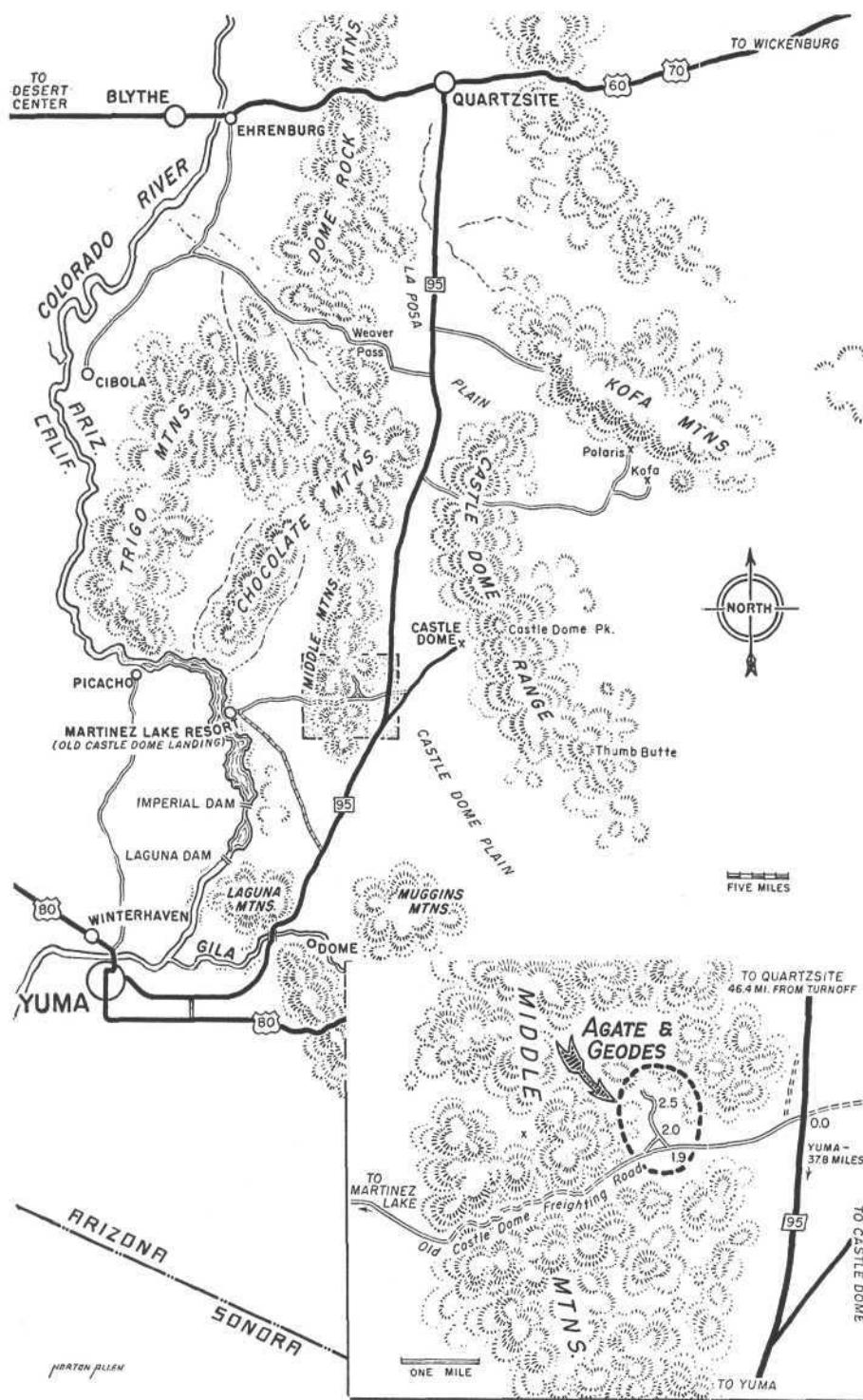
**T**HE LEAD-SILVER mines of Arizona's Castle Dome district were booming in 1868, and ore-wagons crowded the dusty road from the mines through the Middle Mountains to Castle Dome Landing on the Colorado River. That was an expensive 20 miles for the mining companies, since it cost \$15 to haul a ton of ore from Castle Dome to the Landing. Mining and hand sorting that same ton cost only \$12. Shipping it all the way from the Landing to the smelter

Following the ruts of a long-abandoned road once used by freighters to haul silver and lead ore from Arizona's Castle Dome Mountains to Colorado River, Harold and Lucile Weight came to a field where the ground is covered with literally thousands of geodes, some of them with very beautiful coloring. While the old road is not recommended for low-slung automobiles, the field is only 2½ miles from a paved highway—an easy jaunt for hikers.

in San Francisco added another \$18.

Castle Dome Landing was a key port for Colorado River steamers, and the freight road was the highway and supply line for all that portion of the Arizona back country. Even the water supply for Castle Dome was hauled along that road for many years, until water was struck in some of the deeper shafts.

Today dams have halted any real navigation on the Colorado. The paddle-wheel steamers are gone, and old Castle Dome Landing is drowned under water backed up from Imperial Dam. A good road joins Castle Dome to paved Highway 95, and during World



War II ore from the lead-silver mines was hauled by truck to a mill on the Gila. The once-important freighting road does not appear on modern maps. But the ruts of the old road may still be traced across the desert plain between the mountains and the river.

We became interested in the old route when Earl Kerr of Picacho, California, told us that geodes could be found near it. We were skeptical when Earl declared there were "geodes by the thousands" in this field, just lying around begging to be picked up—and that they were within two miles of the Yuma-Quartzsite highway. Not that

Earl doesn't know his rock locations, but it didn't seem possible—after all the waves of rockhounds that have washed over the desert country—that such a condition could still exist.

However, Earl was definite in his directions, and we were certain it would be interesting to try to follow the old freighting road, whatever the number of rocks we found beside it. Besides, we needed no excuse to make a return visit to that stretch of wild valleys and rugged volcanic peaks, saguaros, ironwoods and palo verdes between Yuma and Quartzsite. It is well up on our desert hit parade list.

If the weather had been favorable, we would have started for the Castle Dome area that same day. But it was June, and we had been panting and perspiring even in our shady camp at Tortilla Flat, Picacho. We knew it was no time to go exploring and rock hunting in the Arizona lowlands. It is quite feasible to make such field trips in summer—if careful precautions are taken—but extreme heat extracts all of the pleasure from rockhounding.

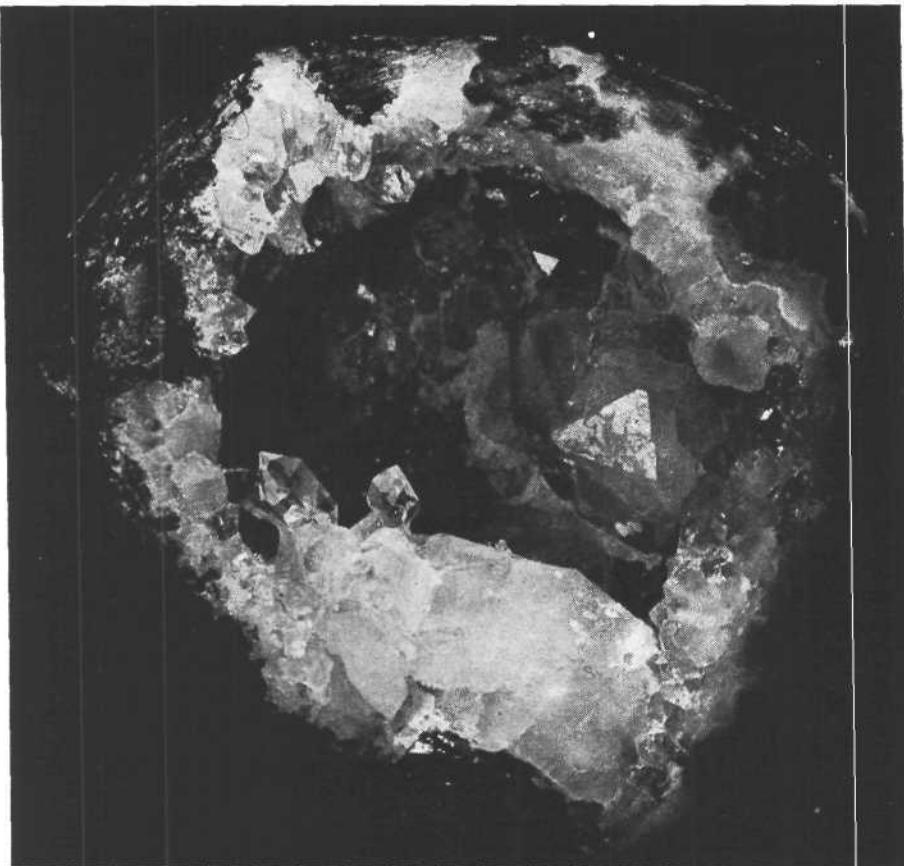
As usual, unexpected events delayed our hunt for the Arizona geodes. Months passed before Lucile and I and Blanche Luff of El Centro headed north from Yuma on Highway 95 toward Quartzsite. It was cool enough, but gusts were slapping the canvas cover of our Jeep pickup, and a yellowish haze in the skies to the north and west indicated a desert windstorm in the making.

At 37.8 miles from Yuma we turned left (west) toward the river on a faint dirt road. We didn't find that turn-off on the first pass, but had to cruise back and forth before we were certain it was a road. Once on it, the trail is easy to follow. That is, it is easy to trace. Low cars may scrape the high centers in places.

The deep broad ruts and the obvious age of the road made us feel certain that we were actually on the old freight route. And it was old. The Castle Dome lead-silver deposits were known to Americans as early as 1862, and Professor William P. Blake reported that the first prospectors found the veins had been worked so long ago that large ironwoods and palo verdes had grown up in the cuts and on the dumps. Blake hazarded a guess that early Spanish explorers or even Aztecs had been at Castle Dome. There also is a persistent local legend that all the lead-silver croppings in this region were worked long ago by Frenchmen.

The Castle Dome mining district was organized at La Paz, farther up the river and then the chief town of the area, on December 8, 1862, and Hermann Ehrenberg was chosen as its first recorder. The recorder was permitted to keep his office at La Paz for the time being. One of the rules of the new district was this: "No claims shall be considered abandoned or forfeited for suspension of work for want of water or on account of war with Indians or any other unavoidable circumstances or obstacle."

The first prospectors, finding brilliant galena ore, thought they had struck a silver bonanza. When tests proved the ore was largely lead, many moved on. But for the next 20 years, according to Eldred D. Wilson in his report on *Southern Yuma County*,



*Tiny crystal-lined geode from the field, showing the variety of quartz crystals from big ones, right center, to tiny, clear doubly terminated crystals, left center. Actual size of specimen, 1 1/4 x 1 1/2 inches.*



*Blanche Luff with agates picked up in Middle Mountain field. On the ground around her are many geodes—black on the outside—apparently coated with manganese.*

issued by the Arizona Bureau of Mines, mining was carried on in the Castle Dome district with no machinery of any kind.

The ore was carefully hand-sorted, so that there was enough lead and silver to make its shipment profitable. Sorted it reportedly ran above 58 percent lead and from \$20 to \$190 in silver. Then it was sacked and hauled to the Landing. From the Landing river steamers took it down the Colorado to a point where it could be re-loaded to ocean vessels and carried to San Francisco.

In 1868, the ores averaged 60 percent lead and \$40 silver, and brought \$90 a ton, while costs of mining and getting them to San Francisco were \$45 per ton. Since the ore shipments were an important freight item for the river boats, it was not long before the steamer captains became interested in the mines. In 1870, Captain Polhamus and his company operated the Flora Temple mine, while Captains Miller and Nagle were working the Castle Dome.

After the Southern Pacific railroad was completed from Los Angeles to Yuma, in 1876, railroad company barges took the ore down river to

Yuma and the trains hauled it to San Francisco for a cost of \$11 per ton. Throughout the years since, the mines at Castle Dome have operated sporadically and they produced a considerable quantity of lead during World Wars I and II. (*Desert*, October 1944). There is no accurate picture of the district's total production, but it is well over \$1,000,000.

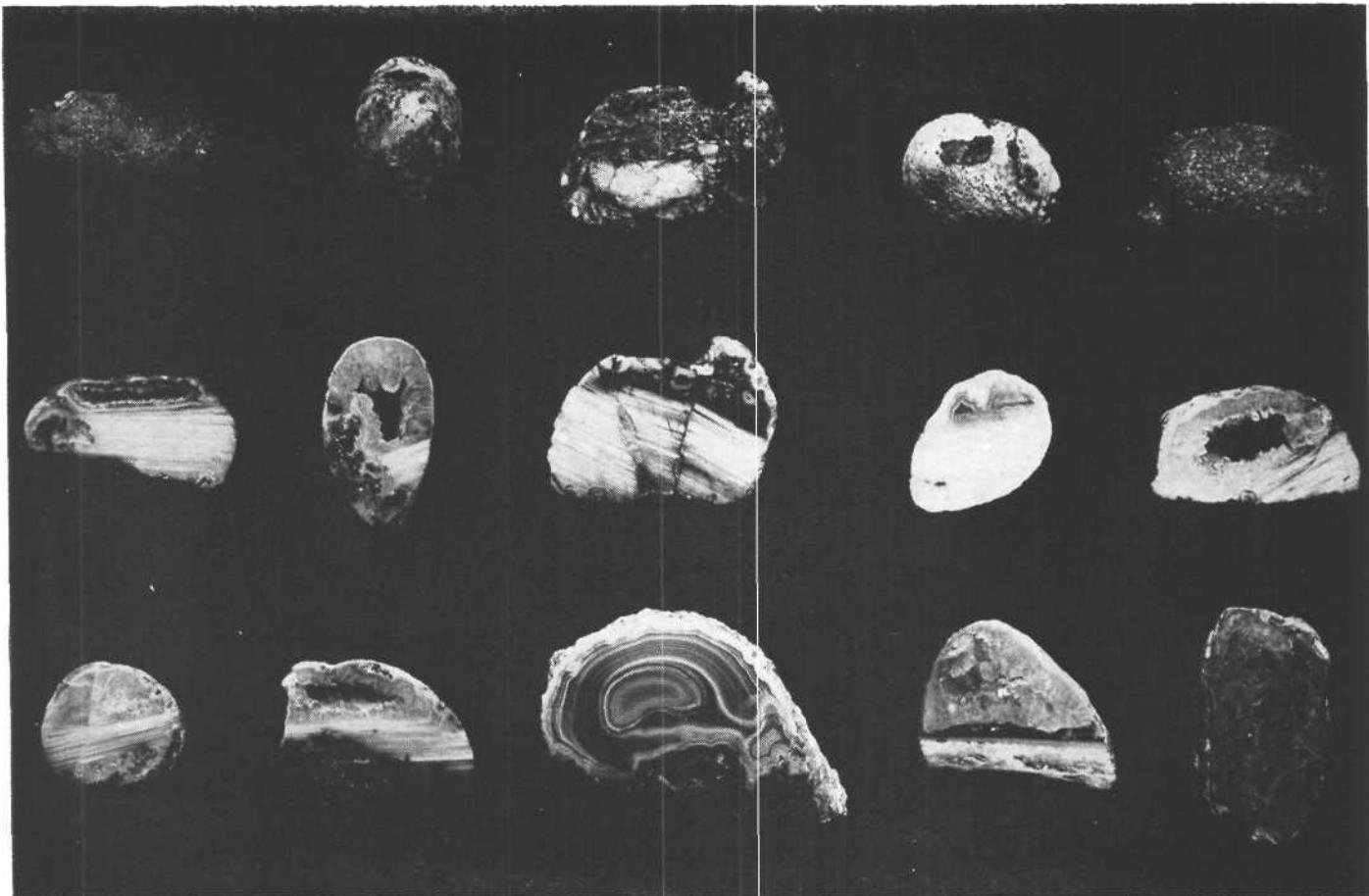
The old freight road was abandoned after the Interior department built Laguna dam, ending navigation on the Colorado. Ed Rochester of Picacho, who was at the Landing about that time, thinks that it was not used after 1908, when the government bought the river steamers then operating, the *Searchlight*, the *Cochan* and, he believes, the *City of Needles*.

We had been told to follow the main road until it started down a canyon of schist formation. There we were to turn and drive north on an old army road. When about half way through the canyon, we concluded we had passed the turnoff, and retraced our tracks. This time we found a turn-off and followed it north about half a mile. Then the rockhunting was over. There were little geodes and agates in the road in front of us.

We left the car and started collecting. And we soon agreed that Earl had been right. Although there was ample evidence, in broken nodules and shattered geodes, that many collectors had been there before us, still there were thousands of geodes and agates left. Most of them were very small. Weathering out from worn-down ledges traversing the rolling, dark-soiled country. They ranged in size from peas to small potatoes. Some resembled birds' eggs in size and shape. Many had crystal centers, others were banded or fortification agates. There was a great deal of manganese in the area, and some of it was found in various forms in many of the geodes and nodules.

Many of the geodes and agates in this Arizona field are similar in size and internal appearance to those found at the foot of the Bullion Mountains, north of Twentynine Palms. But most of their exteriors are dark—often black. Apparently this effect is caused by the manganese. The stones with the manganese inside are often like those once abundant in California's Mint Canyon.

We had lunch near the car. Although dust clouds rising above the



*Specimens from the Middle Mountains geode field. Upper row shows the outside forms of the agate nodules and geodes shown in the second row. Actual size of center specimen  $1\frac{1}{2} \times 2\frac{1}{4}$  inches.*

hills in all directions showed that a windstorm was in progress, there was no more than a pleasant breeze in our protected position. After eating, we circled through the little valleys and over rolling hills and buttes, checking the extent of the field. Although the area where we first stopped seemed the heart of the geode region, we found patches and scattered specimens as far as we hiked.

Back at the Jeep, we admired each other's special prizes and loaded a representative collection of the geodes and agates of various sizes, shapes and kinds. Later, sawing proved that quite a percentage of the stones were only of fair quality—and that the thin-shelled geodes are apt to break up explosively while being sawed if too much pressure is applied in the lock-up. But we also cut beautiful fortification agates—including some which had been fractured and the fractures filled with red jasper—and many exquisite crystal geodes.

We turned back to the old freight road while the sun was still high, because I wished to see if it would be possible to follow the tracks down to Castle Dome Landing—or to where

the Landing had been. The road plunged abruptly into the canyon—a beautiful narrow, twisting gorge with high, steep walls. In places the ruts of the old trails could be seen clearly.

At other times we followed only the trackless floor of the sandy wash, winding ever deeper into the harsh heart of the Middle Mountains. As it grew narrower and the sand and gravel softer, I wondered if it were going to deadend, leaving us to work our way back through the soft sand after dark. But the grade of the wash continued downward in the direction we were heading.

At last we broke out into the open, from between high and narrow canyon walls, out onto the bajada which stretches down to the Colorado River. It had been an interesting trip but I would not recommend it—even down hill—to anyone who has trouble getting stuck in sand.

Looking down the bajada, through the haze of wind-puffed dust, we could see the familiar bulk of old Picacho peak across the river in California. At one spot where we had stopped in the canyon, we had been able to see Castle Dome to the east and Picacho to the west simply by turning our heads.

The old freight road across the bajada, heading toward the river, was deeply rutted. A later road—the one we were on—paralleled in spots. We had expected to find the Landing completely deserted—with even the adobes which once lined the bluff above the river melted back to the soil. But something was wrong with that picture. Down by the river what seemed to be large numbers of metal buildings were shining in the faint light of the setting sun. Was it some new Army-Navy development? And if so, would we soon meet an armed sentry, and even this late have to battle our way back up the canyon in the Middle Mountains through which we had come?

No guard stopped us and at last we came to a sign: "Imperial Wildlife Refuge." Then we passed a roughly cleared airstrip, with the windsock snapping in the breeze, and came to cars, ramada, trailers, cabins, a store and another sign: "Calzona Sport Club." We pulled up at the store and I went in and found we had arrived at Martinez Lake. There had been only a few shacks at the fishing resort until about a year before, the store-keeper told me. Then the boom started.



*Old Castle Dome Landing is known today as Martinez Lake, a fishing resort in the Imperial Wildlife Refuge. A desert windstorm has hazed the background, hiding the mountains above the bajada.*

*Geode field in Arizona's Middle Mountains, not far from the Yuma-Quartzsite highway. Castle Dome in right background. Small geodes and agates are found scattered over slopes and dark flats in the picture.*



Lots at the lake were leased by the Fish and Wildlife service on a 20-year basis, and there was such a demand for them that drawings were held.

It was a strange experience—an absurd anti-climax—to be drinking ice-cold Cokes, while radios blared, in a spot where we had expected to find the silence and peace of a long-dead mining camp landing. Too strange an experience for us. Martinez Lake was too civilized. We drove out to the bluff, trying to picture the Landing as E. B. Hart of Quartzsite had described it to us.

Bert Hart was at the Landing in 1889, when there was quite a settlement, with a row of adobe houses along the bluff, inhabited by pros-

pectors and freighters, and an adobe store run by Ed Hodges. In 1891, the year of the big flood, all roads were cut and it was impossible to get supplies from Yuma. Everyone in the Silver district ran out of food, and they moved down to Castle Dome Landing so they would be on hand when the steamers did get up the river with supplies. It was three weeks before the heavily-laden *Mohave* put in at the Landing. For two weeks everyone had been short on grub, and for a while the only food was a steer which one man had managed to kill.

"We went right on board and had breakfast with Captain Polhamus," Bert remembers. "Bacon and eggs—and it sure tasted good!"

## TRUE OR FALSE

mineralogy, botany, literature and the general lore of the desert country. It hardly is likely any one person will know all the answers. A score of 12 to 14 is fair, 15 to 17 good, 18 or over is exceptional. The answers are on page 30.

- 1—The fangs of a rattlesnake are in its lower jaw. True..... False.....
- 2—Homes of the pueblo Indians are never more than one story high. True..... False.....
- 3—Showlow is the name of a town in Arizona. True..... False.....
- 4—Goldseekers who came west a century ago over El Camino del Diablo crossed the Colorado river at Topoc. True..... False.....
- 5—George Wharton James wrote the book *The Wonders of the Colorado Desert*. True..... False.....
- 6—A horned toad belongs to the reptile family. True..... False.....
- 7—Chief Winnemucca was an Apache Indian. True..... False.....
- 8—The commanding officer of the Mormon Battalion on its trek to California was Kit Carson. True..... False.....
- 9—A stand of beehives is known as a lapidary. True..... False.....
- 10—The Joshua tree belongs to the lily family. True..... False.....
- 11—Furnace Creek in Death Valley was once a famous gold mining camp. True..... False.....
- 12—The trading post at Cameron, Arizona, is on the banks of the Little Colorado River. True..... False.....
- 13—The only difference between an amethyst and a quartz crystal is the pigment that gives the amethyst its coloring. True..... False.....
- 14—Raton Pass is one of the gateways to Death Valley. True..... False.....
- 15—The blossom of the mescal plant is yellow. True..... False.....
- 16—Mexican Hat is the name of a settlement in Utah. True..... False.....
- 17—The closest town to the wartime Basic Magnesium plant is Tonopah. True..... False.....
- 18—The metal combined with copper to make bronze is tin. True..... False.....
- 19—Elephant Butte dam is in New Mexico. True..... False.....
- 20—Brigham Young was the founder of the Mormon Church. True..... False.....

After photographing the river and town from the bluff, we headed back toward Yuma on the bladed gravel road which angles over to Highway 95. It was nearly dusk when we left, and gasoline lanterns were being lighted in some of the camps. Looking back to the east, we could trace bits of the old freight road we had followed and see the canyon by which it passed the Middle Mountains. As we watched, the falling darkness and streaming, twisting clouds of dust blotted it out and we could see only the darkening bajada, with its vine-like pattern of trees and shrubs, marking the many washes and arroyos.

Even so, the old freight wagons and their animals and most of their drivers have been blotted out. The wagon wheels have become dust and rust—or grace the gateways of synthetic ranchos. The river is blocked to the paddle-wheelers that once fought its current and muddy bars. Week-end lodges of the city folk stand where the adobes of the old-timers have melted away.

But back in the Middle Mountains the old road remains—and the desert remains—just as it was when the creaking ore wagons rolled slowly to the river. The ruts are deeper—turned into channels by the summer rains—and the canyon is quieter, but the spirit is unchanged.

We were glad to drive along the bladed road and the paved highway. Glad that such roads are open to bring city people into the desert. But we are still more thankful that quiet spots like the rutted trail in the Middle Mountains still remain. Places where those of us who desire the strengthening solitude of the desert can sit by the rain-washed tracks made by the wagons of vanished teamsters and—looking out at the same hills, the same towering saguaros, the same ancient ironwoods they saw—place our own passing problems into truer perspective.

### MIDDLE MOUNTAIN GEODE ROAD LOG

- 00.0 Leave paved Highway 95, heading west on faint dirt road. Road leaves highway 37.8 miles northeast of Yuma (3.5 miles north of paved right branch to Castle Dome mine) and 46.4 miles south of Quartzsite.
- 00.2 Cross powerline maintenance road, continue west, keeping to main traveled road through several narrow washes.
- 01.9 Y. Leave main traveled road for right branch.
- 02.0 Y. Keep right, following winding road to about
- 02.5 Near center of geode and agate field. Small specimens may be found in all directions.



Professor Thornber at his study in the University of Arizona.

By WILSON MCKENNEY

**A**DISCONSOLATE Easterner traveling through the Southwest turned from the train window and exclaimed, "How can anyone live in this desolate wasteland? There's nothing but rocks and sand and dead brush—not a living thing in sight."

How wrong he was—and no one knows the fallacy of his remark better than John James Thornber, white-haired resident of Tucson who has spent a long and busy lifetime getting acquainted with the plants of the arid region.

John Thornber is one of those rare botanists who can give you the name

of practically every shrub and tree on the Arizona desert—and that is quite a feat, for there are many thousands of living species in the state of Arizona.

The impatient tourist from the East would no doubt be surprised to know that the quiet scholarly Professor Thornber has collected an herbarium of nearly 100,000 specimens, all within the area popularly identified as desert.

I first met Prof. Thornber in 1937 when I was on an assignment for the *Desert Magazine*. I had seen the scientist's name listed in "Who's Who," and I went out to the university hoping I would have the privilege of meeting him personally.

Groping in the soft gloom of a basement corridor in the College of

Fifty years spent in the study of the thorny cacti, the fragrant sages, and the numerous grasses of the cattle range have given John Thornber of the University of Arizona every right to be called the dean of desert botanists. Here is the story of a man whose name is known to every student of Southwestern plant life.

## Desert Botanist of Tucson

Agriculture building, I finally turned in at a remote doorway and half stumbled over a man down on his knees. Observing dimly that the man seemed to be engrossed in sorting and piling cardboard sheets on which plant fragments were pinned, I stepped around him and addressed a young man working at a desk: "Is Mr. Thornber in?"

"Professor Thornber is right behind you," he answered.

A thin bespectacled man rose from the floor, brushed a strand of white hair from his eyes, and extended a lean hand as I introduced myself. Almost apologetically he explained that school would be opening shortly and he was preparing for classes. "But come into the office and we will talk," he added as he led me past more stacks of cardboards and books to a tiny den in the far corner of the room. Slightly stooped, with head and shoulders thrust forward, he moved with a grace which belied his age and his deep tan testified to days spent out-of-doors in the wind and sun.

We sat at an ancient desk piled high with books, papers, and plant fragments. Shelved books filled three walls of the den and two straight-backed chairs were stationed before a small open space on the desk-top. This was the hideaway of a scholar, not an executive.

He spoke softly, and talked eagerly about his work, not about what he had

done, but what he hoped to do. Reticent about himself, he talked about his plants and his theories on improvement of range conditions. Although the record showed that he had done much original work on cacti and ornamentals, his years as director of the agricultural experiment station had brought him close to the problems of human survival. He had seen whole beef herds wiped out by poor or wasted grazing lands; he had helped far-sighted cattlemen understand the rotation of grasslands and the value of introducing proved hardy grasses.

Coming to the raw western college as a professor of botany 50 years ago, Thornber launched into a practical study of the problems of the cattleman. His systematic classification of edible grasses and their adaptability to Arizona, New Mexico, and Texas proved of great economic value to the area. His great regret was that his final project at the university was never completed: preparation of his manuscript on the hundred best grasses for grazing purposes. Like many other lifetime researches, the fruits of his labors were passed on for others to reap academic harvests.

Constantly urging field work in the absence of authoritative text-books, Thornber showed his students the necessity of examining not only the native plants and their soil but rainfall and temperatures at various elevations. By combining environmental factors in charts which he devised, he was able to introduce certain grasses which improved beef yields and aided soil conservation.

At a time when fences were frowned on and cloud seeding was an unknown fantasy, he measured air currents, tended rain gauges, and lectured on a scientific understanding of Nature's laws. If his suggestions of maximum cattle population under given soil and rainfall conditions were scorned by early settlers it was because the scientist spoke a generation before universal acceptance.

The Arizona Agricultural Experiment Station published a Thornber booklet on *Native Cacti as Emergency Forage Plants* and a number of other articles on native ornamentals. His most popular work on cacti was *The Fantastic Clan* in which he shared authorship with Frances Bonker. The book bore an introduction by his friend Harold Bell Wright, the famous novelist, who admired Thornber's work.

Named dean of the college of agriculture in recognition of his outstanding work, the professor loathed his administrative and executive duties but held the title for seven years. He was happy to return to the title of staff botanist in order to give his full time

to teaching, research, and laboratory work. He so busied himself with teaching and helping his students that during his entire career he never found time to complete the requirements for a Ph.D. degree, normally a requisite for the ambitious instructor seeking professional upgrading.

Since the binomial nomenclature of botanical classification was set up about 200 years ago, any person who first publishes the name of a genus, species, or other taxonomic group is said to be the author of that group. In formal citations his name is placed after the name assigned and might even become a part of the genetic name. Botany students today will frequently come across the name of Le Conte or Engelman, whose investigations were concluded about the time of the California gold rush. The very few contemporary desert botanists who have been so honored include MacDougal and Thornber. A petalonyx, common shrub of the Salton sink region, bears Thornber's name and taxonomists have credited him with Organ Pipe cactus (*Cereus thurberi*). Incidentally, Organ Pipe National Monument is the name given a giant federal reserve in southern Arizona, the last northern stand of the picturesque many-fluted cacti on which the pitaya blooms in season.

Because of Prof. Thornber's habit of absolute exactness in all things, it took me 13 years to complete the story which prompted my original visit. As a desert resident I was familiar with the evergreen tamarisk tree and had learned informally that Thornber was responsible for its introduction from Africa. When I questioned him, however, he demurred, saying that another man might deserve credit.

After extensive delay and correspondence he was satisfied with the accuracy of the version to be published in a later edition of *Desert Magazine*. To illustrate his habit of accuracy, an associate told me that when Thornber left his office he would invariably glance at his watch and say "I shall be out ten minutes—no—twelve minutes." And he would return promptly on the prescribed minute!

Prof. Thornber is now 79 years old. Although he suffered a slight nervous breakdown following his wife's death three years ago, his health is now good and he continues daily study of rare plants. On half-retirement from the university since July, 1942, he no longer lectures or maintains an office but he gladly advises younger men who are completing work he started.

A lifetime member of the Episcopal church, his interest in recent years has turned to church landscaping desert areas. He has found that many of the

most useful and fruitful trees indigenous to Syria, Lebanon, and Palestine will adapt themselves to the U. S. Southwest, especially to the Tucson area. Acceptance of his plan for ornamental plantings by his home church leads him to hope that recognition of botanical convertibility will create spiritual ties with the Holy Land.

For his work in introduction and identification of many valuable ornamentals, the horticultural society of Alameda County, California, in 1944 voted Thornber "Arizona's No. 1 Horticulturist," cited him on a radio program and presented him with an award. In 1945 the faculty of the College of Agriculture where he labored so long hung an enlarged picture of the botanist at the west entrance of the college building. The following year at Christmas time the faculty and student body gave him an engraved scroll "in acknowledgement of faithful service and devotion to the University of Arizona over a period of 45 years."

This kindly, considerate, and humble gentleman, who preferred to help his students rather than to win personal academic honors and who constantly sought improvement of the land in which he lived will be honored by unborn generations who will be happier and more prosperous because of his work.

#### • • • FISHERMEN FLOCK TO NEW RAINBOW TROUT WATER

Increasing popularity of the Colorado River below Hoover dam for rainbow trout fishing was evidenced by the fact that during a recent weekend there were 568 fishermen in 123 boats on the water at one time.

Anglers from the California side reach the Emery fishing wharf by way of Eldorado Canyon, and on the Arizona side the landing is at Willow Beach.

Good trout fishing extends a distance of 20 miles along the river and the upper reaches of Lake Mohave, the new reservoir now being formed behind Davis dam.

For security reasons, the river immediately below Hoover dam for a distance of one mile is off-limits to fishermen. Conspicuous signs mark the fishing limit. Two anglers who went 150 feet upstream beyond the signs recently were arrested by a game warden and held to answer by the U. S. Commissioner.

Trout fishing in the lower Colorado River is a development of recent years. Trout were planted in the stream for the first time after Hoover Dam was completed, and it was found that the water coming through the penstocks from Lake Mead above was as cold as that of mountain trout streams.



# Dipo -- of the Desert Sands

By EVALYN SLACK GIST  
Photograph by Gayle Pickwell

THE FIRST time I saw him, (it was late one moonlight night near Twentynine Palms on the Mojave Desert), I thought surely I must be dreaming. A buff-colored little something with touches of black on his face and a white throat and chest, he looked as if he had just slipped into evening clothes and come out to dance lightly over the silvered sand.

Closer observation disclosed large brown eyes, tiny pink ears and a white tuft at the end of his long, black and white tail. But what impressed me most was his baby pink forefeet and the incredibly strong hind legs that lifted him over the sand in almost six foot leaps.

"It's a pygmy kangaroo," I thought, standing very still, "straight from the Land of the Teenie Weenies."

Then, even as I watched, there on the sand was another and yet another, until perhaps a dozen were skipping about on soft furry hind feet. It couldn't be real! Yet there they were,

looking like nothing so much as phantom visitors from Australia or perhaps New Guinea. That was my introduction to the desert kangaroo rat, *Dipodomys deserti*. Since that night I've learned a lot about this fascinating little creature of the wastelands.

Some species are as large as rats while others are not much bigger than a good sized mouse. Often known as Bannertails because of their tufted white tail which they use much as does a kangaroo; a rudder while moving and a brace while standing, the kangaroo rat gets around with astonishing grace. His unusually strong hind legs enable him to burrow into the sand and to leap straight up in the air from one and a half to two feet. They can and do use these hind legs to fight like Trojans with one another when the occasion seems to demand.

Oddly enough, they can go for months without a sip of water. Cactus, various roots and even the dry seeds which are their principal diet, appar-

ently supply all the moisture needed. That the mother can furnish milk for her babies without any liquid in her diet is one of the miracles of the desert.

About half of the head of a kangaroo rat is an auditory chamber which enables him to hear acutely. Each cheek is equipped with a fur lined pouch. When both are filled with as much as a heaping teaspoon of seed, the head seems out of all proportion to the body.

Living in labyrinthine tunnels at several levels, often beneath mesquite or creosote bushes, they are actually more like ground squirrels or gophers than a kangaroo. Each tunneled home, outwardly appearing as a low, wide mound five to fifteen feet in diameter, is occupied by a single animal, except in the case of a mother with her three or four or even five babies.

Each underground den is well stocked with provender. Thrifty, indefatigable in their search for food, the

# Off Limits to the Public . . .

By DONLEY LUKENS

LAS VEGAS, Nevada—Old prospectors with diggings in the area between Las Vegas and Tonopah and Death Valley and Highway 93, who have not visited their claims for some time will probably find them posted with large red warning signs when they return to them.

Some old desert rats have gotten the mistaken idea that since the six explosions, including five atomic bursts, in January and February, and a new 125 mile fence is being erected around Frenchman's Flat, they can disregard the signs and simply stay outside the fence. This, however, is not the case. The experiments are not over, nor are they likely to be in the near future. The fence is for the AEC and Air Force personnel, not the public. Neither is there any assurance all future bursts will be within the fenced area.

The large warning signs, printed in bright red on white paper, have been

posted in both active and deserted mining camps throughout the area, at cattle ranches, stores, taverns, shelters, trails, and water holes in an effort to cover every place they might be seen by people traveling this part of the desert.

The Bombing and Gunnery Range occupies a large irregular 5,000 square mile area as shown on the accompanying map. If your business takes you near its borders the wise thing to do is to notify AEC officials at Indian Springs where you will be and when. You will be safe as long as they know where you are.

The AEC has established a helicopter patrol of the general area. Five of these craft, including some borrowed from the Air Force were used

in the original posting operation. When they spotted a lone prospector or camp they dropped out of the sky to give their warning.

How many of these ships are left to continue the posting and warning operation between the various series of experiments is not revealed by AEC, but no stone is being left unturned to insure public safety.

The old roads from Crystal Springs to Tonopah and Indian Springs run directly through the bombing range and are now closed to the public. The old mining roads leading off Highways 5 and 93 also are closed at the points where they enter the range.

The project is a part of the Los Alamos Scientific Laboratory and is under the direction of Carroll L. Tyler, manager of the Santa Fe Operations Office of AEC.

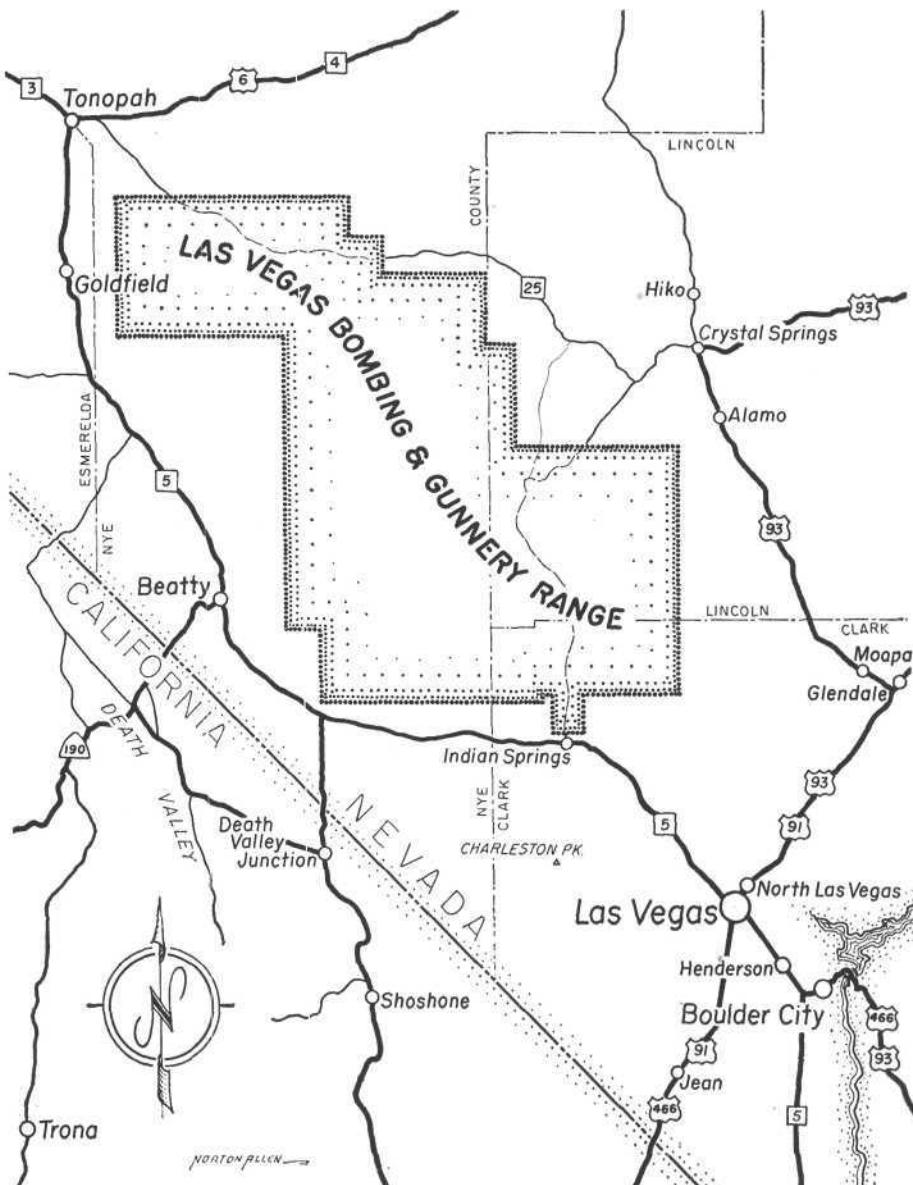
Continuous checks for radiation have proved that there is no danger from this source to anyone outside the bombing range area either during, or after the bursts.

*(Continued from previous page)*

kangaroo rat ranges over about a hundred square yards, using his tiny forefeet to cram grass seed into his cheekpouches. It has been estimated as many as 600 round trips from field to den are necessary to store a bushel of food, the usual amount kept on hand by each animal. However, as much as two bushels of seeds and grass heads have been unearthed in a single burrow.

Owls, kit foxes, bob cats, coyotes and sidewinders are the kangaroo rat's most menacing enemies. Their main defense lies in flight. Being agile, they quickly retreat to the inner recesses of their underground homes when threatened. Their nocturnal life, coupled with acute hearing alerts them to all enemies. Fortunately, the snake is the only foe who will penetrate the winding tunnels the kangaroo rat calls home. Some who claim to have seen it, say little Two-foot will plug his den to keep Mr. Snake out, or to seal him in, once he gains entrance. Since each dwelling is equipped with half a dozen openings, this seems unlikely.

Although timid, the kangaroo rat responds readily to kindness, even learning to come for food that is regularly offered. If you have never seen these tiny creatures dipping and diving about on furry slippers, you are in for a treat. It takes a bright moonlight night and lots of silent patience. But their amusing antics are ample reward.





# Attaki Spends His Poker Winnings

By SANDY HASSELL  
 Sketch by Charles Keetsie Shirley  
 the Navajo Artist

ATTAKI, THE Navajo, changed his gait from a trot to a walk, took a few steps, then stopped and drew a deep breath. For more than three hours he had traveled without resting. A part of the time he walked but most of the time he trotted.

The sun was just showing over a hill. This would be a good time, he thought, to rest a few minutes and count his winnings. From several of the pockets of his four shirts and three pairs of pants he took money. Some of it was silver but most of it was paper bills. Counting it was a big job; several times he forgot and had to recount. When he finished Attaki decided there must be three or four hundred dollars.

Many miles to the south two white men in a bunk-house at the big lumber camp were also counting money—but they were counting their losses. These two men were dressed much the same as other people who worked at the camp but their hands showed no acquaintance with toil.

"That Indian must have had a rabbit's foot in every pocket" said one. "Never saw a human as lucky. If he hadn't been a long-haired Navvie who could not talk English I would say we had been taken for a ride."

"He is just as dumb as the rest" said the other. "He hasn't won anything yet—not until he leaves camp. He'll be back again tonight and want to play. Then we can take him."

Attaki hadn't gone to the lumber camp to gamble—he had gone there to work in the woods just as many Navajos on the reservation did. When working, any Navajo could save some money to send home to his family. Lately his wife and his mother had not been selling enough rugs to buy all the food his family needed. Twice when they had been without food for two days he had gone to the Agency. Once they had given him food and once they had none to give. When he had received no food his wife had pawned her shawl and bought a sack of flour and enough wool to finish her rug.

Attaki didn't like to gamble with white men. If they lost, most of them got mad. Navajos never got mad, they liked to gamble and it made little difference to them whether they won or lost. If a white man did tricky things with the cards when playing and was caught, the others would say he was cheating and would want to fight. Navajos considered this part of the game. When one Navajo caught another one doing this he would laugh and take the bet. Navajos didn't mind losing a bet but it hurt when somebody laughed. When Attaki had sat down to gamble everybody had expected him to lose the fifteen dollars, which he had saved from his first pay-check. They did not know that Attaki in Navajo meant "the gambler." Attaki had watched them play for many evenings and knew they were playing with cards that could be read from the back. Attaki had learned to do this also. The rest was easy.

Attaki arranged his money in several piles and each pile was put in a different pocket. He resumed his journey north toward the big town where steam cars passed through on iron rails. On the other side was the reservation and his home.

When Attaki arrived at the big town the sun had two hours to travel before it hid itself. Time enough for him to buy the things he wanted. Tomorrow he could start home.

There were big stores in town that sold everything, but Attaki liked to do his trading at the trading post down by the railroad tracks. In the big stores no one spoke Navajo and Indians who did not have on new clothes were not always welcome. At the trading post Indians were always welcome and if the trader thought they were going to do any trading he usually opened a can of tomatoes.

Attaki was well pleased to find just the right kind of Indians in the trading post. There were several prosperous looking Navajos whom he did not know and one worthless town-Indian whom he did know. If the worthless

one asked him for money—and he was sure he would—he could show the prosperous ones how generous he was.

Jewelry he must have first for this was his bank account. Besides it let all the other Indians know he was a well-to-do Navajo. Attaki could always pawn his jewelry for groceries. Each piece he bought was carefully inspected and taken outside where the light was better so he could judge the quality of the turquoise. The purchase that he was most pleased with was the two strands of turquoise beads he would wear looped over the bottom of his shell beads. Long ago Navajos had worn these as ear-pendants and still called them "ear-ropes." He had paid the trader \$50 for this pair and knew he had bought them cheap. Most any trader on the Reservation would

allow him this much in groceries—and the trader usually allowed about half the price in pawn that an article cost. Yes, the trader must be telling the truth when he said he was selling him the jewelry cheap.

Clothes came next, everything from shoes to hat. If he had good jewelry he must have good clothes to go with it. At first he thought of putting his clean shirt and pants on over his others and then decided against it. He could buy some heavy underwear that would do just as well.

There were also some debts that should be paid now that he had the money. All Navajos paid their debts—when they have money. He wasn't quite sure about the \$15 which the trader at Pointed Rock said he owed. Five years ago he had been working on a Government job there and the trader had given him credit on his pay-check. The Government man from Washington said the job was going to last two months and it had lasted only one. The trader had gotten the check for one month's work but Attaki had spent more than that, for the man from Washington had said the job was going to last two months. He didn't think the Government was doing just right by not taking care of that. Well, anyway, he would send the trader \$10 by his cousin, and when he got around to it he would pay the rest. He was sure the trader wouldn't mind waiting when he knew he was going to be paid.

Attaki surveyed himself with satisfaction. Then he thought of his wife and family. It wouldn't look right for him to have all the new clothes; other Indians would say he was stingy. When Attaki finished buying drygoods it looked as if he was going to have a "ceremonial sing." Anything the trader suggested for womenfolks, Attaki bought.

And, before he forgot it, he had better buy some groceries. Not a whole lot, but enough flour, sugar and coffee to last a couple of months. He knew if he bought too much all of his and his wife's relatives would come and visit and there wouldn't be enough room in his hogan for all of them to sleep comfortably.

Attaki's purchases filled several large paper boxes. Before it was too late he had better look around town to see if he could find someone who was going out his way tomorrow. Again luck came to visit Attaki. The trader who lived near his hogan was in town with his small truck and after much grumbling had agreed to haul Attaki and his provisions. Of course he wouldn't charge a neighbor for this little service. Attaki couldn't understand why the trader always grumbled

about hauling him and his provisions. Hadn't Attaki always traded with him until he had stopped giving credit?

When Attaki returned to the trading post it was still open. The trader was counting his money. It had been a good day for him and he had Attaki to thank for it. True he had sold Attaki some of his best jewelry for less than it had cost him in trade, but he had been glad to do it. Few Navajos had money to buy good jewelry anymore and the white people who priced it said it was too high even when he offered it at cost.

Knowing that Navajos seldom refused pop and cookies the trader in a spirit of friendliness opened a bottle of pop and placed some cookies on the counter in front of Attaki.

"Ah, my friend" said Attaki, "I have been so busy today that I have not had time to think about something to eat."

Could it be, thought the trader, that an Indian with so much money hadn't eaten all day? It would do no harm to see if he was hungry. Another bottle of pop, a double handful of cookies, a large can of peaches, a can of corn willie and a loaf of bread was placed before Attaki. Pop, peaches, meat, cookies and bread were consumed in the order named. Attaki smiled, wiped his mouth with his hand and then rubbed his stomach. From his pants pocket he took a handful of paper money and placed it on the counter.

"My friend" he said, "here is more than a hundred dollars. I want you to keep it in your iron box tonight. If I have it with me I might lose it."

#### • • • NILAND-BLYTHE ROAD OPEN ONLY TWO DAYS A WEEK

Many inquiries come to the Desert Magazine office regarding the status of the Niland-Blythe road which crosses the aerial bombing range between the Chocolate and Chuckawalla Mountains in Southern California. According to information furnished by W. J. McClelland, clerk of Imperial County, the road is open on Saturday and Sunday each week. Motorists are warned to keep off of it the other five days of the week.

#### • • • Pine Creek, California . . .

They're "mining in the sky" two miles above sea level at one of the world's largest tungsten mines, the Pine Creek operation of the U. S. Vanadium Corporation, 25 miles northwest of Bishop. Demand for tungsten began climbing when Communists took over China, the largest tungsten producer in the family of nations.—*Mining Record*.

## ENJOY YOURSELF A WEEK-END OR A LIFETIME! in BEAUTIFUL HEALTHFUL **BORREGO SPRINGS**

Southern California's most fabulous planned desert community!

**YOU** have seen many Desert Cities grow.

**NOW** is the time to Build and Invest for Your Future.

**HOMESITES** in this Ten Million Dollar development as low as **\$650** utilities included.

See This Protected Valley

— or Write —

**BORREGO SPRINGS**

5478 WILSHIRE BOULEVARD  
LOS ANGELES, CALIFORNIA  
Phone: Webster 8-6356

# LETTERS...

## Which Land Office? . . .

Barstow, California

### Desert:

The article on "Jackrabbit Homesteads" in the February issue is most timely and instructive.

As a former field engineer of the General Land Office (now Bureau of Land Management) I note that your description of the areas under the District Land Offices is rather indefinite with respect to the Mojave Desert region. This region comes under the jurisdiction of both the Sacramento and Los Angeles offices.

Should you care to pursue the matter further, either land office, of course, can give you the boundary. I think it would be of assistance to your readers who might be contemplating filing under the act to know just where the boundaries are.

LEROY A. PALMER

*Paul Witmer of the Los Angeles Land Office has furnished us a map showing the dividing line between the Sacramento and Los Angeles land offices. The line extends east and west across California just north of the 3rd Standard Parallel. It bisects the California-Nevada border about 20 miles north of Needles and passes just north of the town of Mojave. At a point near Taft the line turns south to the 1st Standard Parallel and then west again to the Pacific. The towns of Baker and Tehachapi are just north of the line. Needles, Daggett, Barstow, Kramer, Muroc and Maricopa are just south of the line. — R. H.*

## Let the Liquor Companies Pay . . .

Monrovia, California

### Desert:

Your editorial regarding the roadside can and bottle nuisance should be widely publicized. Also some good suggestions were made by your readers for stopping the promiscuous dumping of debris along the roadways.

Let's have more suggestions. Mine is that a deposit of 5 cents be required on every bottle and can of alcoholic beverage sold, as an inducement to insure return, or to pay small boys for gathering them up. Or, an assessment against the liquor companies to defray the cost of men and trucks who would patrol the roads and pick up the ugly containers.

C. D. BEDFORD

## Trail to the Black Nuggets . . .

Phoenix, Arizona

### Desert:

I was living in Parker, Arizona, many years ago when your editor, Randall Henderson, was learning his printing trade at the old Parker Post.

John D. Mitchell's story about his search for the Lost Pegleg mine recalls an experience of those early days. My partner, Guy Marsh, once did a great favor for an old Chemehuevi Indian who was a famous trail runner. His wickiup was in Chemehuevi Valley on the California side of the river.

The Indian frequently stopped at our place for a visit, and we talked with him about the Lost Pegleg with which he seemed quite familiar. He once offered to take us to where he said he would show us the three buttes which are known to all who have studied Pegleg lore.

I have forgotten the Indian's name, but he was very old but still strong and active on the trail. He told us he knew a trail formerly used by the Indians which ran from old Fort Mojave to San Diego, and passed within a short distance of the three buttes, on the center one of which Pegleg's black nuggets are said to have been found. Neither Marsh nor myself felt that we could make the long trek with the Indian, and so we declined the offer. Maybe we declined millions in black gold.

BOB SAUFLEY

• • •

## Story Book Adventure . . .

Yuma, Arizona

### Desert:

I am still so excited I cannot think straight. It is all like a fairy tale come true.

Last Saturday we took the trip to Picacho that Harold and Lucile Weight described in the December issue of *Desert*. We started just where they said to start, watched our mileage, turned as they directed.

We found the cutting stones at the right distance, the chalcedony roses where they were supposed to be. The "Sheep's Head" looked more like a Lion's Head, but that is merely a difference in imagination. We paid homage to the shrine of Princess E-Vee-Taw-Ash, and then called on Ed. Rochester and Earl Kerr, saw their wonderful collection of stones and drank coffee with them.

Please thank Harold and Lucile Weight—and we thank *Desert Magazine* too—for this grand experience. As a New Yorker I did not know such beauty and adventure existed outside the museums and story books.

MERCY D. VAN VLACK

## "Peanut Pitchstone" from Mexico . . .

Alamos, Sonora, Mexico

### Desert:

Your readers responded generously to my letter, published in your October '50 issue, in which I offered 100 Mexican jumping beans for \$1.00—the money to be used to help Mexican students in the Byerly school near Navajoa.

About \$150 was received. Most of the money was used to aid the scholarship of "Chuy" Ramirez, the first lad to graduate from the Byerly school. Chuy was a half orphan bootblack on the streets of Navajoa. He was a good shine boy, always brought back the correct change, and we picked him for a winner. Our confidence was justified by the fine record he has made.

And now he is in advanced school at Montemorelos, and the director there tells me he has won the hearts of the faculty by his industry and honesty. An examination showed he was nearly blind in one eye. How he carried on so well with this handicap is a mystery. But with jumping bean money we have bought glasses that have largely removed the handicap. Chuy wants to become a medical missionary among his own people. And as more funds are needed to keep him in school, and the jumping bean season is now over, I have another suggestion.

I sent you samples of an interesting new mineral found near here—gray and black obsidian full of tiny nodule-like pellets of jasper—"peanut pitchstone" some of us have called it. If any of your readers wish to obtain specimens of this unusual rock, part of the money received in payment will go into a fund to aid Chuy and his little brother and sister, who are in the Byerly school.

J. L. Kraft of Chicago cut some of this stone, which we have decided to give the name "Alamasite" and it took a beautiful polish. The stone is brittle, and not easy to handle, but Mr. Kraft has created some lovely cabochons of the red "peanuts" in dark matrix.

Persons interested in obtaining this stone may address me at Alamos, Sonora, Mexico.

ALBERTO E. MAAS

• • •

## The Lady Also Wears Horns . . .

Palm Desert, California

### Desert:

In common with most of your published writers, I enjoyed seeing another of my stories in the March *Desert Magazine*. This time, though, on behalf of a certain Bighorn friend of mine from up on the mountain, I've got a complaint to make. It's the caption on that lead picture. The caption

I sent in must have become lost in the shuffle and someone had to make one up. It must have been that new sheep editor you are breaking in because I know you would have known better.

The caption reads: "The Patriarch and a younger ram on the skyline." The part that got me in dutch with the sheep is that "younger ram" business. You see, that so-called "younger ram" happens to be the Patriarch's favorite spouse and along about next May, she will undoubtedly become a grandmother because Elder Brother got all hot and bothered last September and disappeared over the farther ridge with a sweet young ewe from a neighboring canyon. You might pass the word along to your sheep editor that in the Bighorn tribe the females, too, have horns! They are not recurved like the ram's but extend upward and slightly backward, and are not nearly so massive.

Incidentally, folks might be interested to know that whereas the ram is the unquestioned leader in all family matters and stands guard, picks trail and otherwise wears the Bighorn

pants the rest of the year; come mating season, he turns all such responsibilities over to the Missus and docilely tags along behind—as in the mislabeled picture—his only interest seemingly is keeping close to his mate. Mrs. Bighorn and I would appreciate it if you would set our readers straight on the sex of the "younger ram." Then I can sometime return to the Carrizo Canyon Country without looking sheepish when I face the Patriarch. Thank you.

• • •

#### More About Jackrabbit Homesteads

Monrovia, California

Desert:

Regarding "Jackrabbit Homesteads" I think I can correct or clear up a few minor points that were missed in your February issue.

The filing fee is now \$10. The advance rental, payable at the time of filing, is \$15 for the three years. All mineral rights are retained by the Government, and Government agents may enter upon the land at any time to prospect, mine, or remove the min-

erals. The only way he could duck that would be to file a mining claim on his own land. A veteran of World War II has a 90 day preference over a non-veteran, and can in that time deprive a non-veteran of his right to file. Representatives of the Department of the Interior and game wardens may enter the premises for inspection at any time.

Here's a catch to it. Instead of getting five acres, the purchaser gets actually only 3.6 acres. There is a right of way of 33 feet all around the property. This makes 1.4 acres on which he cannot build anything permanent. If his land is appraised at \$20 an acre, he puts up a total of \$125 for 3.6 acres, or \$34.72 per acre, and then he has to put a shack on it too. The chances are that he could buy a piece near there without any strings for the same price.

ROSS H. PORTER

Note—A veteran has a 90-day preference right only to land which has been restored to entry after previous withdrawal.

• • •

#### The Girl Who Climbed the Peaks . . .

San Diego, California

Desert:

I certainly enjoyed reading Louise Werner's fine article on El Picacho del Diablo, but I hope you will please give credit where credit is due. You had my name under the right picture, all right, but it was Freda Walbrecht who has climbed all the 14,000 foot peaks on the West Coast, and incidentally, is the Los Angeles attorney. I certainly have been kidded about that statement!

In spite of this mistake, however, I want to assure you that I am still one of the *Desert Magazine's* most ardent fans and look forward to each issue.

BARBARA LILLEY

Desert's mountain editor apologizes to Freda Walbrecht and thanks Barbara Lilley for clearing up this mistake.—R. H.

• • •

#### There's a Reptile Ahead . . .

South Gate, California

Desert:

*Desert Magazine* is almost perfect, but to us it has one flaw. Its close-up pictures of reptiles are more terrifying than the live creatures. We enjoy reading about them, and realize they are part of the desert, but my heart truly fails when I turn a page and am greeted by the portrait of a rattle coiled for action. Can't you warn us 'fraidy-cats one page in advance? Please!

HOLDAMAE VOUGHT

DESERT MAGAZINE

## "In Quest of Peace and Beauty . . ."

Along many of the prehistoric Indian trails which still may be followed in the desert country are little mounds of rocks—the Trail Shrines of the ancients. According to archeologists, these mounds grew rock by rock as tribesmen, following the trail, each deposited a stone with the prayer that he would walk in peace and return unharmed from the mission of his journey.

It was from this ancient symbolism that the staff of the *Desert Magazine* derived the plan for a modern Trail Shrine to be erected at the magazine's pueblo at Palm Desert, a shrine to be dedicated Sunday, April 1, "to those who follow the desert trails in quest of peace and beauty."

The shrine is the product of cooperative effort by the staff of *Desert Magazine* and eight Southern California Mineralogical societies. Participating societies are the Orange Coast Mineral and Lapidary Society, San Jacinto-Hemet Gemstone and Mineral Club, San Gorgonio Mineral and Gem Society, N.O.T.S. Rockhounds, Mojave Mineralogical Society and Coachella Valley Mineral Society, San Fernando Valley Mineral and Gem Society, and San Diego Mineral and Gem Society.

The Shrine will consist of a large boulder bearing a copper plaque engraved by Charles J. Parsons of the San Diego Mineral and Gem Society and carrying the names of the participating groups. On the boulder is a copper hand-tooled box containing a register for those who visit the Shrine and deposit their rocks on the mound at the base of the boulder. The copper box was made by Cliff Gentry and the Hand-tooling by Homer Sherrod, of the Coachella Valley Mineral Society.

While the mineral societies have been the principal contributors to the project, the Shrine is for all who travel the desert trails—and *Desert Magazine* extends an invitation to all who are interested, to be present at the dedication, and in the months ahead to add their rocks to the growing mound which is the Shrine.

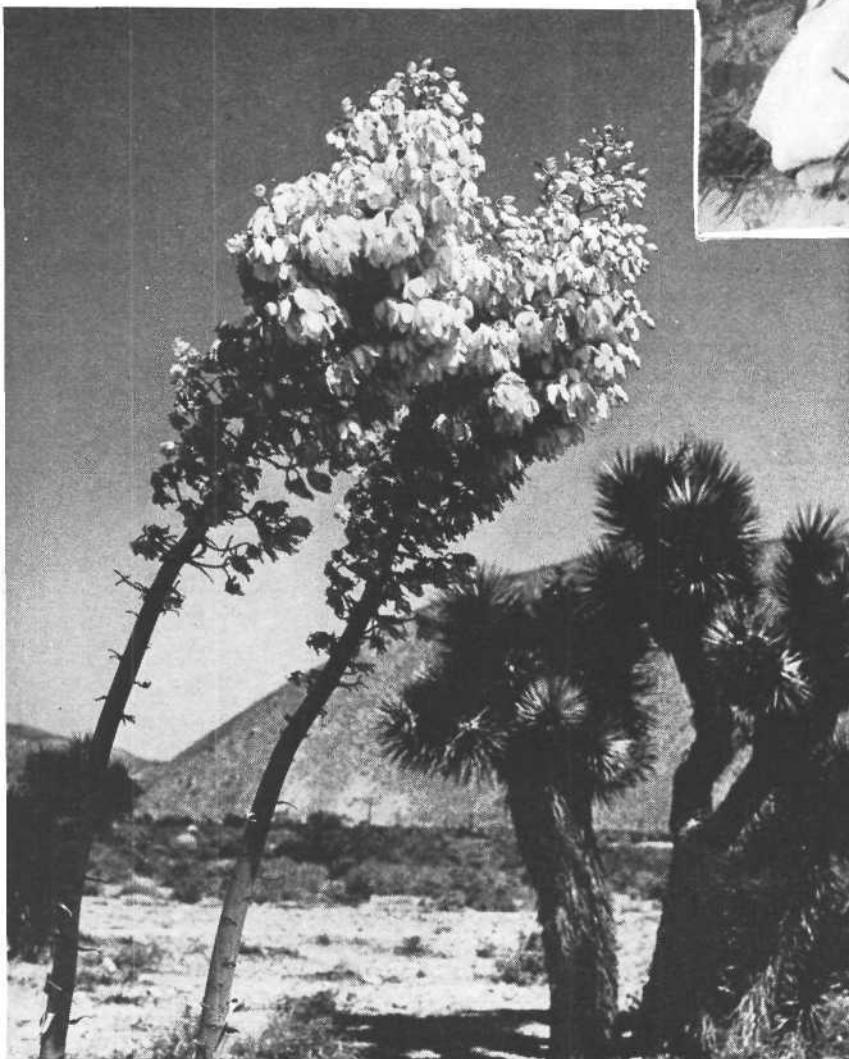
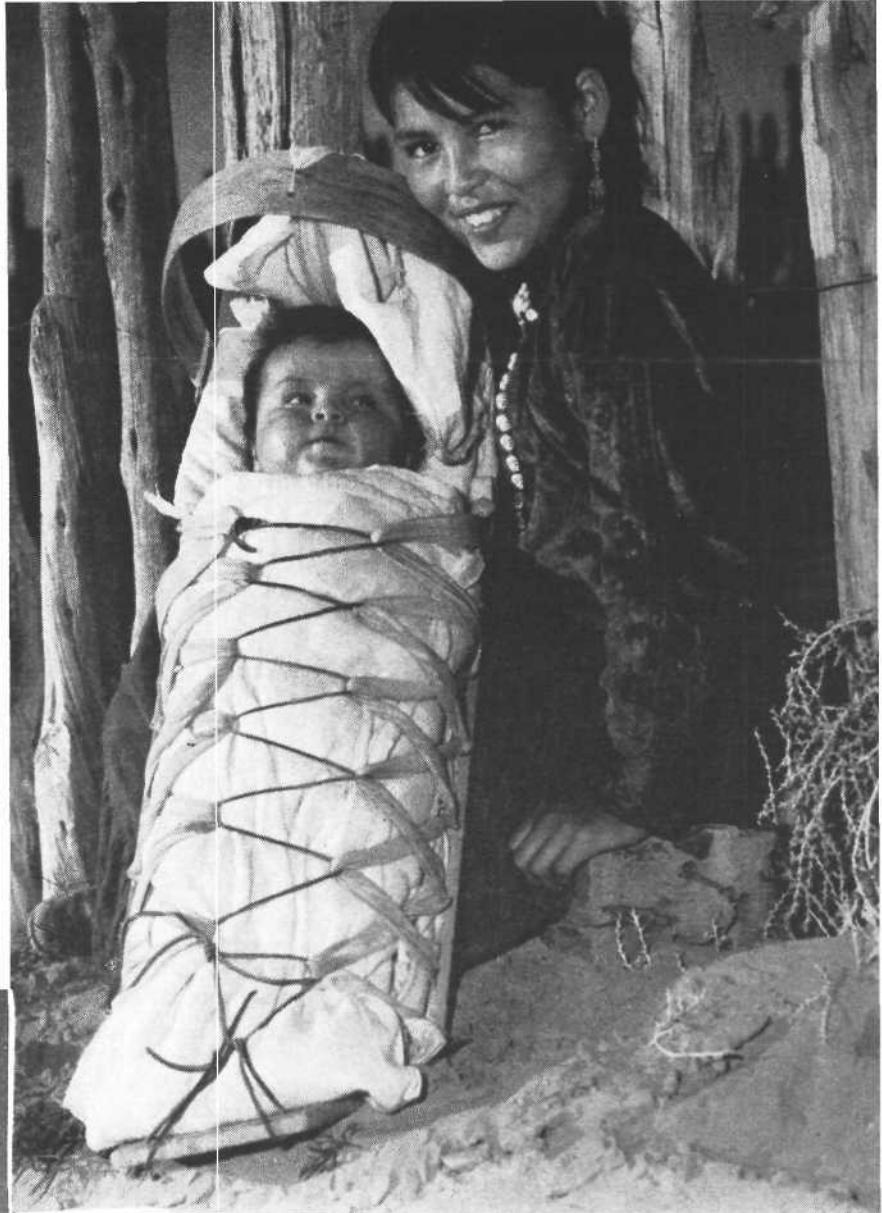
The simple dedication program is to be at 11 a.m. Sunday, April 1.

## NAVAJO BABY SITTER

Photographed in Monument Valley, Arizona, by Woody and Sibyl Rhea of Ruth, Nevada, the picture on the right was awarded first place in Desert Picture-of-the-Month contest in February. Mrs. Rhea wrote:

"My husband and I came across this little Navajo girl as she was herding the last of her small flock of sheep into the corral near the family hogan. Speaking very little English, she told us her parents were at the trading post and she was caring for her baby brother while they were away. She nodded her head toward a tiny papoose with its cradleboard propped against a corral post. Until then we hadn't even noticed the baby. The picture speaks for itself, but I would like to add that we have never seen such a cute little sparkle as this boy was. He captured our hearts as did the sweet-faced Indian girl. Both had million dollar smiles."

Photo taken with B. & J. Press camera with Plus X film, f.32 at 1/100 second.



## PICTURES of the MONTH

### YUCCALAND

Second prize winner in the February Picture-of-the-Month contest was B. M. Klus of Livermore, California, with the accompanying print of Yuccas in blossom near Palmdale, California.

Photograph taken with a 4x5 Speed Graphic, Ektar lens, K2 filter, Super Pan film, f.16 at 1/200th second.

# Pedro's Lost Gold Mine . . .

In most instances, the lost mines of the Southwest were "lost" so many years ago that only legendary bits of information remain to guide those who would seek them. Here is a lost mine tale of much more recent date—so recent in fact that persons living today will vouch for the "20 pounds of gold" taken from its hiding place by a Mexican sheepherder. Here is the story—and you can draw your own conclusions.

By FRANK BECKWITH  
As told to Charles Kelley

**7**HIRTEEN YEARS ago a Mexican sheepherder known only as Pedro, walked into the dental office of Dr. J. E. Stains at Delta, Utah, and asked the doctor if he would like to buy some gold dust.

Curious, Dr. Stains asked to see a sample of the gold. The sheepherder reached into his pocket and brought out a small bottle containing what appeared to be small nuggets of gold. Selecting a few grains Dr. Stains tested them for malleability and acid resistance. They proved to be genuine, and the doctor bought the contents of the bottle.

Later, Pedro brought in a buckskin bag containing nearly 20 pounds of the same placer gold, but as the dentist had no use for such a large quantity the Mexican left his office and a little later quit his job and has never been seen again in Delta.

Who was Pedro, and where had he obtained so much gold dust? Inquiry revealed that the Mexican had been herding sheep in the vicinity of the House Mountains, 50 miles west of Delta, for about five years. A stockman said Pedro had shown him an old map of a lost mine which he thought should be somewhere in the House Mountains. It was well known that the Mexican spent all of his spare time searching the foothills and mountains.

But Millard County is not noted for its mineral formations and no gold had ever been found except some showings of fine placer in North Canyon, near Marjum pass, just below a granite-lime contact. The long gravel slope below this contact had been prospected from time to time, but the mineral was not in sufficient quantity to show a profit.

However, Pedro, the man with an old map of a lost mine, had actually found at least 20 pounds of gold, and rumors began to circulate that he had discovered a lost mine and dug up some of its buried treasure, presumably mined in early days by Spanish miners and buried when they were attacked

by Indians. It was the usual story—except that Pedro actually had the gold.

Men began combing the hills in the vicinity of North Canyon, where Pedro had herded sheep, hoping to find more of the treasure. Two prospectors eventually discovered a small tunnel in the rock and returned with a story that they had found old Spanish tools abandoned in the tunnel, but no gold. One of those tools, a small pick, deeply pitted with rust, was later brought to my office and still reposes among my collection of relics.

Another relic of Spanish exploration which was brought to me about the same time is a lance head, made of white bronze on an iron core. This was found near Milford and is not directly connected with the lost mine. But it furnishes undisputed proof that Spanish expeditions passed through the country. Father Escalante passed this way in 1776, and no doubt other expeditions, of which there are no written records, followed his trail. Since most Spanish expeditions were interested in finding gold, this lance-head may have been lost by some such prospecting party.

Two of those who began hunting for Pedro's lost mine were Joe Neilson and his son-in-law, Alva Barnes. This was during the early part of the depression, when no other employment could be found. After searching the mountains and foothills, these men finally found a hole in the ground on the slope below North Canyon, and decided it must be the old Spanish diggings. With ropes they went down into the hole, and reported they had found a series of rooms, about 12 feet square, offset every 12 feet like the old Spanish diggings, and containing traces of old wooden ladders used to bring out the gold-bearing gravel. They believed they found traces of leather buckets and rope. Gravel brought from below showed colors of gold, so the two men rigged a windlass, built ladders and went to work to clear the old mine and find the gold-bearing stratum.

I was asked to visit Neilson's "lost mine," and after careful examination came to the conclusion that it was just a natural sink hole, into which had been washed bits of wood and brush. The openings did appear to be offset, but there was no evidence it had ever been worked by man. Neilson and Barnes were much disappointed with this finding, but it did not change their faith in the old mine theory, and they continued to work it for five years. When money ran short they borrowed, and for months lived on nothing but beans, potatoes and bacon. Each bucketful they hauled out showed colors, but the rich gravel never was located. They were finally compelled to abandon the project, after digging their shaft 80 feet deep.

But lost mine stories do not die easily, and many people in Millard County still have faith that a treasure will some day be found. Tom Watson of Delta, says he knew Pedro, and that the Mexican once showed him a gold Spanish coin which he said he had found in North Canyon, just above where Neilson later worked. Watson says it was definitely old, and certainly Spanish. However, the coin cannot now be produced.

Besides these facts and rumors, there is definite documentary evidence that Spanish or Mexican expeditions did explore Utah for minerals.

There is no water in North Canyon except from melting snow in the spring, which limits placer operations to a very short period of time. Bill Cook of Delta, believes that Spanish miners packed their gravel to Sevier lake to wash it, and states he has seen their gravel dumps there. Another fact which might substantiate this, is furnished by Barclay John, who has been collecting Indian relics for several years, particularly along the shore lines of old Sevier Lake. On one trip he found a yellow pebble which he thought was pyrite, and threw it in his truck. It was still bouncing around in his truck two years later when he made a trip to Salt Lake. Showing it to an assayer, he found it was gold, and sold it for \$12. He now believes it came from the Lost Spanish mine.

As a result of searching for this lost mine, placer gold was later found in North Canyon, and claims have been worked there from time to time ever since, depending on water supply, but no rich strike has ever been made. The gold colors found by Neilson and

Barnes were washed down from this small deposit. Pedro may have found a rich pocket; or he may have accumulated his 20 pounds of gold dust by patient work over a period of several years.

Three things, however, are certain. Pedro did have a bag of gold; Spanish relics have been found in North Canyon; and there is gold in the gravel slopes. If Spaniards ever had a profitable mine in the House Mountains, it has not yet been rediscovered—unless Pedro actually did find it. And Pedro has disappeared.

*Top — Dick Morrison standing beside abandoned shaft sunk to reach bottom of the big sink hole. No gold was found.*

*Center — North Canyon showing the alluvial fan and in middle foreground the "Lost Isabel" shaft. In this vicinity Mexican Pedro is believed to have found his 20 pounds of gold.*

*Bottom — Shaft of the "Lost Isabel," where Joe Neilson and Alva Barnes went 118 feet to bedrock without finding any Spanish gold.*

## HEY, ADVENTURERS!

Contact us for information  
leading to a  
**THRILL OF A LIFETIME**  
In  
**RIVER WONDERLAND**

In recent years, travel by boat through the Colorful Canyons of the rivers of the West has become increasingly popular. Having chalked up nearly 10,000 miles of such travel, including many trips through Canyons of the Green River, 7 through Cataract and 2 through Grand Canyon of the Colorado and others, we are well qualified to furnish an enjoyable and safe trip at very moderate cost.

### Scheduled trips for 1951

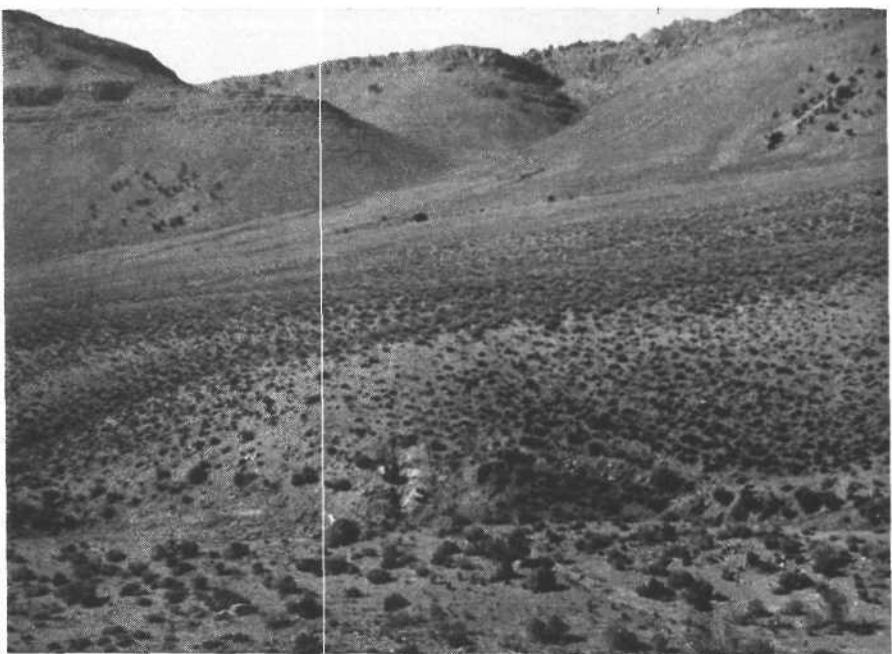
**Yampa & Green Rivers, 3 to 4 day trips, weekly, May 18 to July 1—\$75.**

**Grand Canyon of the Colorado—2 wks. Leaves Lee's Ferry, Ariz. July 9—\$500.**

**Middle Fk. Salmon River, Idaho—1 wk. trip, starting August 5 — \$200.**

**Also charter trips on any Western River.**

**For details and reservations write:  
HARRIS-BRENNAN EXPEDITIONS**  
1250 Elgin Ave. — Salt Lake City, Utah



# MINES AND MINING . . .

## Pioche, Nevada . . .

Battle for the nation's No. 1 critical and strategic metal, manganese, is underway with lines drawn in Nevada and other western states, according to the U. S. Bureau of Mines. The search for manganese, from a metallurgic and production standpoint, is one of the grimdest battles for survival in the eyes of John H. East, regional bureau of mines director. East said the U. S. was now importing manganese from India, Africa and Brazil, all requiring a long ocean haul.—*Pioche Record*.

• • •

## Ely, Nevada . . .

Operations have been started on an extensive copper deposit in Ingersoll Canyon, between Lane City and Ruth, by the Kennecott Copper Corporation. The property covers more than 50 acres, estimated to contain about 3,500,000 tons of copper ore. Kennecott engineers state it will require approximately two years development before production begins. Kennecott, Nevada's foremost copper and gold producer, is working its Copper Flat and Ruth properties on a capacity basis, producing about 20,000 tons of ore daily.—*Pioche Record*.

• • •

## Henderson, Nevada . . .

Combined Metals Reduction Company is planning to install an electrical furnace for treatment of manganese concentrates at the Basic Magnesium Inc., plant at Henderson. The plant will cost approximately \$250,000. If sufficient power can be made available, the new furnace will be working by June 1. Combined Metals Reduction Company has been negotiating with the state of Nevada and the Colorado River Commission to secure facilities in the big plant at Henderson and also for a supply of power adequate to meet their needs.—*Pioche Record*.

• • •

## Las Vegas, Nevada . . .

General Services Administration has approved contracts for basic magnesium and electric power at Henderson, between National Lead Company and the Nevada Colorado River Commission. The agreement requires the company to start titanium production by July 1. National Lead expects to employ 500 men when all units are operating on full production, producing all titanium necessary for national defense if enough power is available. Titanium is being used to replace stainless steel in aircraft manufacture, saving 40 percent weight.—*Los Angeles Times*.

## Tonopah, Nevada . . .

Basic Refractories, Inc., an Ohio corporation, operators of large deposits of magnesite at Gabbs Valley, northwestern Nye county, have fired their 390-foot calciner. By using the new calciner, the shipping weight of the magnesite, most of which goes to Maple Grove, Ohio, at present, will be reduced by more than one-half. The enormous deposit of magnesite ore in the Gabbs district lies 33 miles northeast of Luning, where the town of Gabbs has grown up around the company's workings. Mining is conducted through open pit, power shovel method.—*Tonopah Times Bonanza*.

• • •

## Goldfield, Nevada . . .

Bill Hammond and J. P. Burgess of Tonopah have located two mining claims in Goldfield, one 200 feet north of the courthouse and the other 300 feet southwest of the Goldfield hotel. They have been named the Lena Rose and the Lena Rose No. 2. According to geological findings, the overburden is several hundred feet deep before the old lake bed is reached and the primary formation exposed. There appears to be no legal objection to mining beneath the town, provided surface-right titles are obtained or permission from the owner secured. The township is patented but mineral rights are not reserved.—*Humboldt Star*.

• • •

## Twenty-nine Palms, California . . .

The Iron Age Mine, 33 miles east of Twenty-nine Palms, comprising an estimated 3,000,000 tons of highgrade ore on the surface, will begin operating as soon as a road is completed to permit trucking to Amboy. Never before, according to local chapter of the Western Mining Council, has this district produced iron commercially on a large scale basis.—*Banning Record*.

• • •

## Battle Mountain, Nevada . . .

Promoting the interest of the small mine owner, a group of mining men from Lovelock and other communities in northern and eastern Nevada, recently formed the Humboldt Mining Association. Ben Jackson was elected president, M. S. Fisher acting secretary. A formal resolution was adopted and air-mailed to Senator Pat A. McCarran and Senator George W. Malone, in Washington and to Representative Walter S. Baring, urging them to exert their efforts toward cutting red tape and bureaucracy in order to expedite mineral production, which they say is now at a low ebb.

## Salt Lake City, Utah . . .

Extensive expansion of fluor spar mining activities in Juab and Millard counties occurred during 1950, according to the Bureau of Economic and Business Research, University of Utah. The Utah production is more than adequate to supply the Geneva Steel Company. The remainder is being shipped east, chiefly to Illinois. The steel industry uses fluor spar as a fluxing agent. It is also used for manufacture of hydrofluoric acid. —*Salt Lake Tribune*.

• • •

## Albuquerque, New Mexico . . .

At its annual convention, the New Mexico Miners and Prospectors Association elected T. M. Cramer of Carlsbad, president to succeed William H. Goodrich of Hurley. The miners pledged support of the national defense program. They passed a resolution asking the draft boards to defer men with technical training in mining. They also passed a resolution opposing "the formation of any additional counties within the state or changing any existing county lines." They called for an expansion of both the staff and the physical plant at the New Mexico bureau of mines and mineral resources.—*Gallup Independent*.

• • •

## Barstow, California . . .

Mineral Materials Company, Alhambra, California, is shipping approximately 30 tons of crude ore per day from the recently discovered Starbright tungsten deposit, located about 25 miles north of Barstow. The deposit, discovered in the spring of 1950 by A. C. Lambert, Barstow, has been actively mined since August, 1950.—*Mineral Information Service*.

• • •

## Tucson, Arizona . . .

The Defense Minerals administration, federally created last year to make mine loans and give other assistance to mine operators, has opened a field office at the University of Arizona's college of mines to conduct inspections and evaluations of mining property in Arizona and New Mexico. The field office will be headed by Walter Storms of the College of Mines and staffed by 20 engineers of the bureau and the U. S. Geological Survey. C. A. Anderson, Prescott, is to head the survey work.—*Tombstone Epitaph*.

• • •

## Vernal, Utah . . .

The California Company has announced its Red Wash wildcat, about 35 miles southeast of Vernal, has flowed on test at the rate of about 275 bbls. daily. This apparently gives the company a producing well and marks the discovery of Nevada's fourth commercial oil field.—*Salt Lake Tribune*.

# HERE AND THERE . . . on the Desert

## ARIZONA

### Tree-Ring Samples Received . . .

UNIVERSITY OF ARIZONA — The University of Arizona has been given 8000 pieces of ancient wood samples to be used for cross-examining established dates and setting new ones on prehistoric ruins in the southwest. A series of 6000 pieces of "history in wood," dating to 500 A.D. has been given the university laboratory by the Museum of Northern Arizona, Flagstaff. Another group of 2000 pieces, gift of the Laboratory of Anthropology at Santa Fe, New Mexico, dates to 800 A.D.—*Tombstone Epitaph*.

### Ajax Engine Whistles Station . . .

TOMBSTONE—The old Ajax engine of the Southern Pacific streamliner between Fairbank and Tombstone will wolf-whistle when it rounds Boothill cemetery and sights the Tombstone station. According to old timers, it is the first time in 25 years the Tombstone railroad terminal has been painted. Built nearly 50 years ago, the station was recently piped with gas and water and painted a golden yellow. Other repairs have been made inside. Mrs. J. G. Skipper, the station agent, threatens to give a station warming party when all repairs are completed.—*Tombstone Epitaph*.

### Colorado River Siphon in Repair . . .

YUMA—The Colorado River Siphon, constructed in 1911 and 1912 is in excellent repair according to engineers who recently inspected it after it had been drained under the supervision of William L. McCaig, USBR maintenance engineer. This is the first inspection since 1925. It was feared deterioration of the concrete tube and a partial filling of the siphon with silt and debris would be encountered. Between 10 and 12 barrels of rocks, bottles, and miscellaneous trash were removed. Particular attention was paid to one spot in the tube that had been patched during the 1925 inspection. Although the patch was gone, its absence had in no way weakened the siphon.—*Yuma Daily Sun*.

### Isolated Tribe to Modernize . . .

GRAND CANYON—Two hundred Indians, living in Havasupai Canyon, are planning to adopt a paleface tourist lure. They are erecting a small group of cabins on their remote reservation to accommodate visitors. To reach them it is necessary to travel 60 miles over a poor road, then hike or

ride horseback nine miles down a steep trail. Everything that goes in or comes out passes over this precarious trail. Tourist income last year was \$5000. It is hoped the cabins will increase the income. Dudley Manakacha, who has been chief since his father's death in 1942, died recently in Phoenix. A new chief will be elected.—*Gallup Independent & Tucson Daily Times*.

### Tucson Stages Festival of Arts . . .

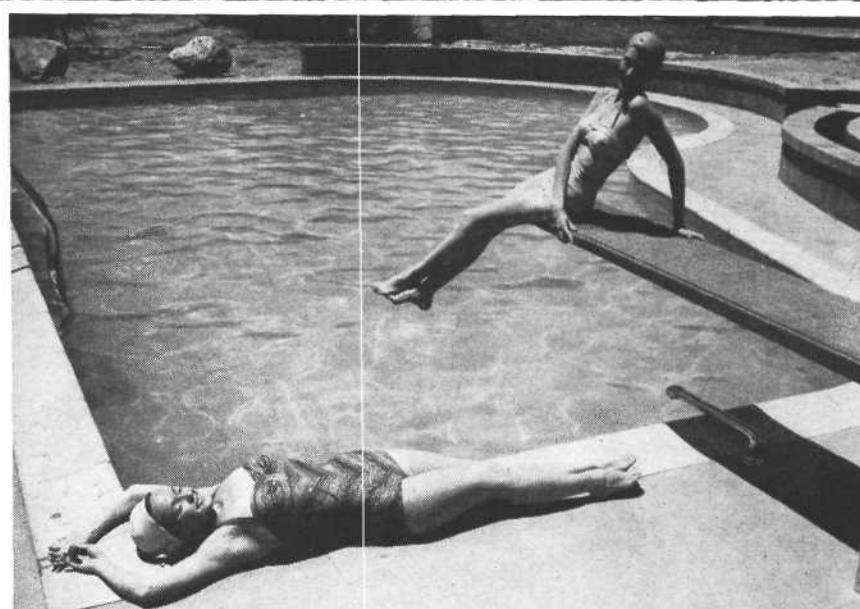
TUCSON—Travelers from Arizona, New Mexico, California, Texas, Colorado and Utah as well as from more distant points are expected to visit the Old Pueblo in Tucson during the two week Festival period of March 25 through April 8. The Festival will encompass the history and cultural heritage of the Southwest's colorful past. Major events include Folklore Night, tribal dances by the Indians, Concert by the Phoenix Symphony Orchestra, lectures and trips to Indian Reservations, Old Mexico and other scenic and historic spots.—*Tucson Festival Society, Inc.*

### Ancient Population Numerous . . .

WASHINGTON, D. C.—Prehistoric irrigation systems in the Salt River Valley area of Arizona indicate the population was about half a million, according to the President's water resources policy commission report. It quotes from an Arizona court opinion of 1888, stating ancient canals of prehistoric people existed all over Arizona and New Mexico. The commission says these ancient ruins first suggested reclamation of the Arizona valleys in the 1870's. The Salt River Valley, according to the commission, had over a quarter of a million acres under ancient irrigation. —*Tucson Daily Citizen*.

### Will Live Year with Indians . . .

TUCSON—Work will be carried on for a year among the Seri Indian Tribe in Mexico as a result of \$1,850 research fund given the University of Arizona by Viking Fund, Inc. William Neil Smith, II, will begin his Indian research April 1. Dr. Edward H. Spicer, member of the anthropology department at the university will guide Smith's work. The tribe, 215 people, lives on Tiburon island in the Gulf of California off the west coast of Sonora. Spicer says the tribe has lived on the island for centuries, subsisting on sea-



- You don't know what swimming pool pleasure is until you have used Paddock Service.
- Unquestioned leader in the pool field for thirty years, Paddock services and maintains approximately ten times as many pools as any other concern.
- Nation's largest and most complete stock of all pool supplies, accessories and equipment, including hard-to-get items.
- Expert engineering and trained mechanics for every pool problem.
- Call us regarding off-season care of your pool.
- Construction—Maintenance—Repairs—Chemicals—Accessories and Supplies.

#### PADDOCK POOL MAINTENANCE CO.

693 Sunny Dunes Road  
Palm Springs, California  
Phone 5123

8400 Santa Monica Blvd.  
Los Angeles, California  
Hempstead 2313

# THE DESERT TRADING POST

Classified Advertising in This Section Costs 8c a Word, \$1.00 Minimum Per Issue

## INDIAN GOODS

WE SEARCH UNCEASINGLY for old and rare Indian Artifacts, but seldom accumulate a large assortment. Collectors seem as eager to possess them as their original owners. To those who like real Indian things, a hearty welcome. You too may find here something you have long desired. We are continually increasing our stock with the finest in Navajo rugs, Indian baskets, and hand-made jewelry. Daniels Trading Post, 401 W. Foothill Blvd., Fontana, California.

4 PERFECT AND FINE Indian Arrowheads \$1.00. 2 large arrowheads \$1.00; extra fine stone tomahawk \$2.00; 4 beautiful bird arrowheads \$1.00; 2 flint knives \$1.00; fine effigy peace pipe \$8.00; bone fish hook \$2.00; 6" or over spearhead \$5.00, thin and perfect. List Free. Lear's, Glenwood, Arkansas.

## BOOKS — MAGAZINES

PANNING GOLD — Another hobby for Rock Hounds and Desert Roamers. A new booklet, "What the Beginner Needs to Know," 36 pages of instructions; also catalogue of mining books and prospectors supplies, maps of where to go and blueprints of hand machines you can build. Mailed postpaid 25c, coin or stamps. Old Prospector, Box 729, Desk 5, Lodi, Calif.

"GOLD PANNING FOR PROFIT." Healthy outdoor hobby. Beginners big illustrated instruction book—\$1.00. Miners' gold pans, \$2.00. Prospectors' powerful magnifying glass, \$1.00. Desert Jim, 627 Lillian, Stockton, California.

BOOKFINDERS—Scarce, out of print, unusual books quickly supplied. Send wants. Clifton, Box 1377d, Beverly Hills, California.

## REAL ESTATE

HIDEAWAY—Improved 20-acre Mountain Ranch with Modern five-room home. One-half mile from highway. Fenced and cross-fenced. 10 acres ready for planting. Close to small town. 30 minutes from PALM DESERT. Buy for delightful summer home or year around living. Elevation 4100 feet. STEAL FOR \$7,500 CASH. Carl Henderson, Pioneer Realtor—Phone 76-2251, Palm Desert, California.

BORREGO: Some good values are available. Excellent and abundant water. Good soil. Whether you want acreage or a building site consult Rear Admiral Ralph Wood, Ret. Drive over and investigate.

FOR SALE: 5 mining claims (100 acres). Year round creek, good hunting and fishing on property. Shasta County. Wonderful location for summer homes. \$3500 or will trade for large, late model metal trailer or two smaller trailers worth \$1500 each. If interested write L. Kniffen, 1815 Oak View Lane, Arcadia, California.

DESERT HOME AND INCOME: Three furnished cottages and 10 acres with mountain spring water. Live in one, rent two. Owner, Wm. E. Miller, Box Y, Lucerne Valley, Calif.

LAKE HAVASU homesite property. 4 miles from lake, 600 acres \$12.00 per acre. Terms, Address P.O. Box 398, Niland, California.

10-20 OR 40 ACRE TRACTS Dos Palmas area Coachella Valley. Within area proposed to have water, \$50.00 per acre, terms. P.O. Box 398, Niland, California.

HOT MINERAL WATER! Imagine your own swimming pool — heated by Nature. Five acres of beautiful desert land, near surfaced road, with a good well, only \$4500—\$2000 down and five years to pay. Doctors and arthritics, especially, should investigate this. Located just 13 miles Northeast of Palm Springs. \$3990 will buy you a good, well-constructed, one-bdrm. home in the Dos Palmas tract. Eight miles NE. of Palm Springs. R. H. McDonald, Desert Hot Springs, California.

PALM SPRINGS HOME, suitable either for the entertainment of house-parties or for the quiet seclusion desired by older people who require a resident staff. Very close in, total enclosed floor area approximately 2500 sq. ft., with room on the lot for pool. Will lease by the year, trade or sell. Post Office Box 152, Palm Desert, California.

## BUSINESS OPPORTUNITIES

FABULOUS EARNINGS — Fascinating pastime. Growing Genuine, living miniature (Ming) Trees. New Sensational Business or Hobby. Astounding information FREE. Dwarf Gardens, Box 355N, Briggs Station, Los Angeles 48, California.

## MISCELLANEOUS

PROSPECTORS AND ROCKHOUNDS WANTED. To join the newly incorporated United Prospectors Organization. If you are experienced or beginners the articles in our magazine are bound to help you enjoy your hobby and the outdoors. Send your name for our new brochure and literature. United Prospectors, Box 729, Lodi, California.

OLD WESTERN outlaw photos, \$1.00. 20 different Old West, Pioneer, etc., photos, \$1.00. 10 different battle of Wounded Knee 50c. 5 different Lincoln 25c. Lists 5c. Vernon Lemley Store, 302 Dallas Ave., Mena, Arkansas.

FRED AND JESSIE PORTEE welcome you to "Pow-Wow" Rock and Gift Shop, East end of Yermo, Calif. Hi-way 91. You are assured of an interesting stop here; whether it be rocks, gifts, information or a souvenir. What's your hobby? Ours is rocks. Come in and "Pow-Wow" with us.

PHOTOMICROGRAPHS of rare and unusual scenes, formations and intrusions in agate. 2x2 color slides six for \$1.55; 100 for \$25.00. Also Western scenes, cacti, models. Sample, literature 25c. Dave Harris, 2401 Pittsburg, El Paso, Texas.

SAVE 50% ON NEW BINOCULARS! Free Catalog. Free Booklet, "How to Select Binoculars." Write Today! Bushnell's 43-DE Green, Pasadena 1, California.

LADY GODIVA "The World's Finest Beautifier." For women who wish to become beautiful, for women who wish to remain beautiful. An outstanding desert cream. For information, write or call Loa Barnes, 963 No. Oakland, Pasadena 6, Calif. or phone SYCamore 4-2378.

COLOR SLIDES—Travel, Nature, Geology, etc. Free list (with sample 30c, three for dollar). Kelly D. Choda, Box 5, Los Alamos, New Mexico.

GEIGER COUNTER—Nucleus, \$16. Postpaid. You add battery and phones to make a reliable, sensitive, beta-gamma detector at lowest possible cost. Free informative literature. Westcoast Products, Dept. D-M, 8227 Grove, Sunland, California.

DESERT TEA. One pound one dollar postpaid. Greasewood Greenhouses, Lenwood, Barstow, California.

MINIATURE MODELS of covered wagons, stage coaches, surrey (with horses to match), ox carts and oxen, chuck wagons fully illustrated in our handsome free folders. Send today. Tontz' Country Store, Elsinore 1, California.

MODERN MESQUITE table lamps. A real gift, handmade on the desert. Nicely finished. Guaranteed to please. Size 4x4x10, only \$7.00 without shade. Prepaid. D. R. Jones, craftsman, 271 E. Andreas Road, Palm Springs, California.

SILVERY DESERT HOLLY PLANTS. One dollar each postpaid. Greasewood Greenhouses, Lenwood, Barstow, California.

WRITE FOR detailed information about your experience of a lifetime on a real desert adventure—Gritzner's, 135 N. Shirine, Mesa, Arizona.

WANTED: Several persons interested in mining, prospecting and general exploring, willing to invest five dollars a week towards financing field trips in search of rare and strategic minerals. A five dollar investment could return \$1,000's. Anyone interested can have full details by writing to Fred H. Holmes, 5913 'A' Seville Ave., Huntington Park, California.

MEXICAN POTTERY, 2 large tiger skins for sale. Write Mrs. Sam Black, 418 Pajaro St., Salinas, California.

food, cactus fruit and products purchased from more civilized areas. They have not been agriculturists, except for a brief time in the 1700's.—*Tucson Daily Times*.

## Navajo Unalarmed by Drouth . . .

WINDOW ROCK — The Navajo view of the drouth which has existed on the reservation for over a year, was expressed recently by Sam Akeah, chairman of the tribal council. Quoting "The Brother of Red Mustache," 80-year-old tribesman of Tohatchi, New Mexico, Akeah said, "There is no reason why the Navajo people should be alarmed. In my lifetime there have been wet years when the sheep grew fat and many years when the Navajo country dried up and the sheep grew thin and died. We have always weathered these bad times." Allan G. Harper, head of the Navajo-Hopi area for Indian service, says the Navajos are used to squeezing a living from unfriendly environment.—*Cocino Sun*.

## CALIFORNIA

### Harry Oliver Plans New Museum . . .

THOUSAND PALMS — Harry Oliver, colorful editor of the *Desert Rat Scrapbook*, published at Thousand Palms, has announced plans for moving his museum of western relics to a site 11 miles north of Needles where the states of California, Nevada and Arizona have a common corner. Oliver plans to erect a new museum straddling the California-Nevada boundary if his application for a lease on the Indian lands at that location is approved. The California half of his building is to be of adobe, and the Nevada half of logs brought from Arizona. The Colorado river is less than 200 yards away. At present a gravel road connects the spot with Needles. Oliver plans to call his new settlement Endoline—descriptive of the long Nevada boundary line which ends at this point.

### Negotiate for Calico . . .

Negotiations are under way for the purchase of the ghost town of Calico, California, by Knott's Berry Farm of Buena Park, California. The purchase would include Calico, 75 acres of land and the historical Zenda mine together with all mineral rights. Desert residents are enthusiastic over news of the purchase that will preserve the well-known landmark. Calico is within five miles of two trans-continental railroads and two cross country highways. Millions travel these routes yearly, most unaware of the historical attraction. The Knotts have an interesting history. Moving to Buena Park around 1929, they began making Boysenberry pies shortly after the depres-

sion struck. These, plus their chicken dinners, were soon drawing thousands. They enlarged, building structures typical of the old west. They brought in all sorts of relics from various mining fields. Today the farm is still famous for food and is an outstanding tourist attraction for those interested in the old west.—*Printer Review*.

• • •  
**Farm Workers Head for Calexico . . .**

CALEXICO — While negotiations for a 1951 quota of farm workers to be sent to the United States were under way in Mexico City, thousands of Mexicans headed for Calexico, Brownsville and El Paso, apparently believing farm jobs would be handed out on a first-come, first-serve basis. It is reported American officials are asking for around 300,000 Mexican laborers to replace Americans taken into U. S. armed forces and defense industries, but that Mexico will restrict the number of workers leaving there.—*Calexico Chronicle*.

• • •  
**California's Busy Gateways . . .**

A. A. Brock, director of the State of California Department of Agriculture in Sacramento, has issued a summary of traffic entering California through state border quarantine stations during 1950. Of all desert highways, U. S. 91, entering California at Yermo, is the most popular route. Brock lists 414,814 automobiles, carrying 1,201,212 people, entering the state at this point, with July the peak month and August running a close second.

Blythe, on U. S. 60, was next in popularity, entering 936,082 people in 280,118 vehicles. This route passes through Desert Center, a way station where travelers are said to mail approximately 18,000 post cards yearly.

Fort Yuma on U. S. 60, passed 216,274 automobiles carrying 692,324 passengers through the quarantine station. Daggett, on U. S. 66, entered 155,650 automobiles and 502,943 people. Parker, just south of Lake Havasu, created by Parker Dam on the Colorado River, was smallest on the list of desert entries. Located on the Parker-Desert Center Highway, entering U. S. 91 at Desert Center, it passed 56,840 vehicles and 159,186 entrants through the quarantine station.

**WANT \$10,000?**  
Earn the govern- Super Sensitive P.R.I.  
ment bonus. Locate GEIGER COUNTER  
Uranium with a GEIGER COUNTER  
Also get one for Atom Bomb  
Defense!  
Find gold, silver, and other  
valuable ores with a P.R.I. Tre-  
asure Locator. World's finest in-  
struments. Free catalog. Write!  
PRECISION RADIATION INSTRUMENTS  
4113D W. Jefferson, Los Angeles 16, California

**Tribal Gatherings Revived . . .**

INDIO—Indians on the Martinez-Torres Reservation met for the first tribal gathering in many years. Father Felix Collymore, pastor of the Coachella Catholic church and of the chapel on the reservation, assisted Chief William Levy in planning the affair. A new organ, donated by Father Anthony Kaspar of Carlsbad, California, filled the reservation church with the first music ever heard within its walls. After the service each of the 30 children received candy, fruit and a gift. Each family received a box of clothing. Refreshments were served later in the yard.—*Indio Date Palm*.

• • •  
**Fish Are Transplanted . . .**

SALTON SEA—More than 1000 surf smelt, perch and other small fish species have been netted from the Gulf of California at San Felipe, Mexico, and planted in California's Salton Sea by the Division of Fish and Game. It was the third effort to establish game and forage fish in the state's largest

**BORREGO VALLEY**

A beautiful desert at 500 ft. altitude—protected by majestic mountains. Away from crowds.

**PEACEFUL SERENE**

Here at sensible prices you can find everything from a cabin site to expensive ranches. Drive over and let's talk about it.

Rear Admiral RALPH WOOD (Ret.)

**"EVERYTHING FOR THE HIKER"**

**SLEEPING BAGS**

**AIR MATTRESSES**

**SMALL TENTS**

and many other items

**VAN DEGRIFT'S HIKE HUT**

717 West Seventh Street  
LOS ANGELES 14, CALIFORNIA

**World's Greatest  
BINOCULAR  
VALUES**

See BUSHNELL'S 33 Models  
NEW FREE \$14.95  
CATALOG! UP

**SAVE 50%**

**30 Day  
FREE Trial**

Guaranteed to give you more and save you money on every popular model. Don't overpay! Compare BUSHNELL'S before you buy. Send for FREE CATALOG and **Free Book "How To Select Binoculars"**

**BUSHNELL Binoculars**

Dept. D-24, Bushnell Building  
Pasadena 1, Calif.

lake. Approximately 7000 Mexican fish, mostly anchovetas, have been transplanted since 1949. According to district biologist, Willis A. Evans, it will be several years before sport fishing is possible. Test seinings will determine results of the project which calls for establishing forage fish before game fish.—*Indio News*.

**Western River Tours**

**SAN JUAN & COLORADO RIVER TOURS**

Bluff, Utah to Lee's Ferry, Arizona

May 1 to May 11

May 14 to May 24

June 12 to June 22

Fares ..... \$175

Shiprock, N. Mex. to Lee's Ferry

May 27 to June 9

Fares ..... \$225

**GRAND CANYON OF THE COLORADO**

Lee's Ferry to Boulder City

July 10 to July 31

Fares ..... \$750

**GREEN RIVER — COLORADO RIVER**

Green River, Wyo. to Hite, Utah

Aug. 6 to Aug. 31

Fares ..... \$850

**GLEN CANYON — COLORADO RIVER**

Hite, Utah to Lee's Ferry

Sept. 4 to Sept. 14

Sept. 18 to Sept. 28

Fares ..... \$250

Twelve Years River Experience

Write:

**LARABEE AND ALESON  
WESTERN RIVER TOURS**

Richfield, Utah

**ALPHA COUNTER** → \$5.00

(Pat. Applied For)



**RADIOACTIVE ORE DETECTOR**

This newly developed nuclear instrument is a practical tool for the prospector, assayer and physicist. It is an optical instrument which gives a clear, distinct visual statistical count of alpha particles (rays) from any source. Complete with carrying case, quencher, radioactive samples and instructions on its use. Mail your order today—only \$5.00 complete. In Calif. add 3% sales tax. Send 10c to cover cost of mailing for large—17" x 22"—characteristics chart of important uranium and thorium ores of the world, and where they are now found.

**CLARKSTAN**

Nuclear Division D-5

11927 WEST PICO BOULEVARD  
LOS ANGELES 64, CALIFORNIA

## Good News for Fishermen . . .

COACHELLA—Until further notice, Arizona license will not be required by Californians fishing on the Arizona side of the Colorado River and Lake Havasu. Likewise, Arizona fishermen will not need a California license to fish on the California side. It is expected the Arizona and California state legislatures will pass bills requiring a \$2.00 license for Colorado River fishing, to be used to propagate the river and Lake Havasu with fish. Passage of the bills will end a long

controversy between the two states over fishing in these waters.—*Desert Barnacle*.

## State Park Requested . . .

SALTON SEA—Approval of a 50 year lease between state and federal officials for 640 acres of land for the proposed state park at Salton Sea is a step closer. The move to approve the land awaits action by the attorney general's office and the state finance department before the lease is executed.—*Palm Springs News*.

## LUXURY CLIMATE

(Not luxury prices) Wide acre and larger homesites overlooking beautiful valley, util. incl. from \$850. All year health spot. Moderate el. Unhampered building. Letter brings maps, new bargain list.

LUCERNE VALLEY SUN  
Lucerne Valley, California

## RAINBOW BRIDGE

... spectacular national monument at the end of a thrilling pack trip from Rainbow Lodge, a restful haven that offers the best in lodging, food and hospitality.

Write Bill Wilson, Tonalea, Arizona, for rates and descriptive brochure, or inquire at Cameron, Arizona.

Season April 1st to October 15th

## Hoofs and Horns

A monthly magazine for the riders of the range and the rodeo.

\$2.00 a year. 25c copy

203 East 2nd St., Tucson, Arizona

## Ceremonial Pageant Planned . . .

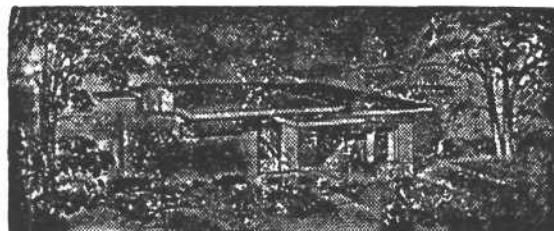
PALM SPRINGS—The second annual inter-tribal Indian ceremonials were scheduled to be staged in the rodeo arena at the Polo Grounds, Palm Springs, California, March 28. This event is planned and staged by over 12 tribes from various sections of the United States. It is the only major Indian ceremonial in the west, put on by the Indians themselves. Unlike other Pow-wows, this ceremonial is likened to the Old Grand Council Fire, where the Indians from far and wide met at the great central fire to hold council, tell stories and sing and dance their age-old traditional rituals. Two University anthropologists, G. H. Williamson and R. K. Thomas, both Indians, act as program directors.—*Palm Springs News*.



Headquarters for  
Repairs & Sales all  
makes. Collimator  
alignment.  
**BINOCULAR  
INSTRUMENT CO.**  
536 S. Hill St.  
Tucker 1624  
Los Angeles 13, Cal.

## ASK YOUR CONTRACTOR ABOUT "PRECISION BUILT"

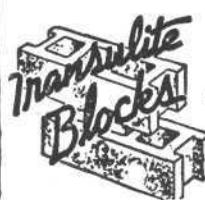
## RED CINDER BLOCKS



## Homes of Distinction

are built with

More  
House  
For  
Your  
Money



PLANS AVAILABLE  
DESERT CINDER BLOCKS FOR  
DESERT HOMES

## Transit Mixed Concrete Co.

3464 E. Foothill Blvd., Pasadena 8  
RYAN 1-6329 or Corona Phone 1340

## NEVADA

## New Road Nears Completion . . .

GOLDFIELD — Work on paving the road to Scotty's Castle, connecting with Highway 95 below Goldfield, is proceeding so speedily construction officials estimate the new route will be completed March 1. On the California side, where operations are under the direction of T. R. Goodwin, Death Valley Monument superintendent, most of the sharp curves have been reduced, requiring extensive use of dynamite. Motorists are advised to enter along the new route (adjoining Slim Riggs' place), as the old road is virtually impassable.—*Inyo Register*.

## Final Atomic Blast Brightest . . .

LAS VEGAS—The Atomic Energy Commission has announced the end of its current series of atomic blasts at Frenchman's Flat proving ground in Nevada. Carroll L. Tyler, manager of the tests, has said other tests will be conducted in the future. For security reasons, he said, there will be no discussion by their personnel of the nature or results of the tests. He reports there has been no incident, dangerous to humans during the tests, at the site or elsewhere.—*Humboldt Star*.

## Pioneer Family History Sought . . .

RENO — Descendants of pioneer Nevada families are being sought by the Nevada State Historical Society in an effort to obtain histories of the families and the part they played in settling Nevada. Photographs of the original pioneers and relics are to be preserved. No such collection has ever been made. Mrs. Clara S. Beatty, executive secretary of the society, who is conducting the project, said if it is not made within the generations now living, much of the data will be lost. Descendants of pioneers can reach Mrs. Beatty at the society's museum in Reno.—*Humboldt Star*.

## Shift of Nevada Water Opposed . . .

CARSON CITY — Senator John Robbins has introduced a bill prohibiting the state engineer from approving any application to transfer water or water rights for use beyond Nevada's borders. Robbins said the measure was aimed at land in Elko County once owned by the Utah Construction Co., and now belonging to the Rogerson Canal Reservoir Co., of Idaho. The Idaho corporation, which recently completed a reservoir on the Salmon River just across the Nevada-Idaho line, is asking water right for the acreage be transferred to its holdings further downstream in Idaho.—*Humboldt Star*.

## Record Tourist Year Indicated . . .

LAKE MEAD—Figures for January travel in the Lake Mead area, released by the national park rangers, show an increase of 15.57 percent over that of 1950. There were 13.75 percent more tourists visiting the area during the first four months of the 1950-51 travel year than for the 1949-50 year. A total of 93,860 visitors were checked in through the various gateways during January 1951—*Las Vegas Review Journal*.

• • •

## Nevada Color Film Available . . .

A new color film entitled "Nevada and its Natural Resources" has been made available to schools, scientific bodies and business groups as well as other organizations by the Bureau of Mines. According to Senator McCarran, it contains shots of Nevada terrain, farming, copper mining and historical cities. Vacation spots are also shown. No charge is made for the use of the film but the borrower is expected to pay transportation expenses and for loss or damage other than normal wear.—*Tonopah Times Bonanza*.

• • •

## Cattlemen Caught in Draught . . .

ELY—Two years ago at this time eastern Nevada's livestock herds were trapped in snowdrifts. Today, snow on top of mountains is measurable in inches and on the ranges and in the towns there is none. It has been the driest period in history. Two years ago help came from the skies, borne on the wings of the U. S. Air Force. Today a "waterlift" would be welcome. Ranchers are hoping for heavy spring storms to moisten the ranges and put snow in the mountains for irrigation water this summer. There has been only about an inch of rain since January 1. Luckily the ranges are understocked this year by more than 50 percent of normal. —*Los Angeles Times*.

• • •

## Halogeton Bulletins Available . . .

RENO—Two new publications have been recently released on the livestock range menace, *halogeton glomeratus*. A limited supply of "Halogeton-Intermountain Range Menace" may be obtained from county extension agents. This leaflet, printed in color, explains how to recognize the weed and latest methods of control. The Nevada state department of agriculture, Reno, will supply copies upon request. Seven full page illustrations show the plant in various stages of growth.—*Caliente Herald*.

## NEW MEXICO

### Martinez Dam Recommended . . .

AZTEC — Five dams have been recommended by the Interior Department for congressional authorization. They include the \$65,000,000 Martinez dam, located just south of the Colorado-New Mexico border, about 18 miles east of Aztec. Others are: Pine River extension in Colorado and New Mexico, the Hammond, New Mexico project southeast of the San Juan River from Bloomfield and the Shiprock Indian reclamation project on the San Juan River. Five states would be affected by the plan: New Mexico, Colorado, Utah, Wyoming and Arizona. Estimated cost is \$1,139,000,000.—*Aztec Independent*.

• • •

### John Gregg Gives Water Report . . .

LAS CRUCES—Based on average for a 10-year period, there is about 35 percent of a one year normal water supply in Elephant Butte, John Gregg told members of the West Picacho Farm bureau at a recent meeting. He said the water outlook was slightly brighter than a fortnight ago but that without additional run-off there is insufficient water to make a crop. He discussed the Water Resources Development Corporation, which has agreed to attempt cloud-seeding, having employed a meteorologist of reliable reputation.—*Las Cruces Citizen*.

• • •

### New National Monument Planned

GALLUP — Manuelito National Monument, west of Gallup, will become a reality in the not too distant future, according to information received by State Senator Guido Zecca from the commissioner of public lands, Guy Shepard. A slight delay resulted when an affidavit of publication relating to transfer of lands from state government was not received by the Bureau of Land Management in Albuquerque. The confusion occurred last October but is now being taken care of, according to Shepard. —*Gallup Independent*.

• • •

## UTAH

### U. S. Will Eye Utah Cave . . .

WASHINGTON, D. C. — At the request of the East Mill Creek, Utah, Lions Club, the National Park service will make an investigation of Neff Canyon cavern on the north slope of Mt. Olympus. Alton Melville, Salt Lake attorney, contacted representative Reva Beck Bosone, requesting she look into the possibility of making the cave more accessible to the public and the chances of it becoming a national monument.—*Salt Lake Tribune*.

## Stream Runoff 120 Percent Normal

SALT LAKE CITY—Stream runoff in the Great Salt Lake basin area for 1951 water season is estimated at from 120 percent to 160 percent of normal in the February forecast issued by Wallace W. Lamoreaux, head of the forecasting division, Salt Lake City weather bureau station. The figures represent an upward revision of the January forecast. According to Lamoreaux, Spanish Fork continues to be the least favored of the basin's streams with 80 percent of normal flow predicted for the water year.—*Salt Lake Tribune*.

## EXPLORATION! SAFE ADVENTURE! SCENIC BEAUTY!



## San Juan and Colorado River Expeditions

Seven-day voyage through the scenic canyon wonderland of Utah and Arizona. Boats leaving Mexican Hat, Utah, May 1, 11, 21 and June 25. Trips end at Lee's Ferry.

Fare \$200 a person. Party rates \$200 for first person and \$150 for each additional member of party. Includes meals, bedrolls, waterproof containers for camera equipment.

**SPECIAL TRIPS:** May 31 and June 12 are the embarkation dates for two leisurely 10-day trips from Mexican Hat to Lee's Ferry. These trips designed especially for photographers and scientists who want extra time for exploration. Fare \$235 with reduced party rates.

" . . . A flight on the magic carpet of adventure into a canyon wilderness of indescribable beauty and grandeur." wrote Randall Henderson in the *Desert Magazine*.

For detailed information write to—  
J. Frank Wright, Blanding, Utah, or

## Mexican Hat Expeditions

(Successors to Nevills Expeditions, world-famous River exploration trips)  
P. O. BLUFF, UTAH

### Plea Renewed for State Park . . .

SUGAR HOUSE—Seven state and two local civic groups have made a united plea to the legislature for preservation of the Sugar House prison site as a state park. Several of the organizations announced they await only legislative approval of the project to begin development of the site. Dr. Avard Fairbanks, dean of the College of Fine Arts, University of Utah, who has been engaged by members of the S.U.P. to create a marble monument, says he will begin as soon as the legislature acts on the proposed park. Depicting youth as the pioneer, the monument would be the only marble statue in Utah. Dr. Fairbanks estimates the state park would mean \$10,000,000 to Utah annually.—*Salt Lake Tribune*.

### Poison Weeds Curbed by Reseeding

MONTICELLO — Halogeton, the rapidly spreading, stock-killing weed from Southwestern Asia, can be curbed by preventing soil degeneration and by maintaining the vegetative cover on western rangelands, according to Secretary of the Interior, Oscar L. Chap-

man. Experiments and observations by the Bureau of Land Management range managers have shown that Halogeton cannot compete with hardy grasses. Crested wheatgrass comes from the same general area as halogeton, he said, and in areas susceptible to reseeding, will choke out the deadly weed.—*San Juan Record*.

### Cattle Rustlers—Modern Style . . .

SALT LAKE CITY—In the frontier days, possemen hunted down cattle rustlers and horse thieves, frequently stringing them up. Today the state highway patrol catches them, with both thieves and the law rolling on rubber tires. Cattle stealing is reported on the increase. A patrol is checking all trucks transporting livestock outside of branding districts. Truckers leaving districts must carry inspection papers. However, due to shortage of men, patrols are confined to main highways. No one, as yet, has gotten around to using the airplane to steal cattle.—*Salt Lake Tribune*.

### Dams Given Top Defense Priority

VERNAL — Top defense priority has been given for construction of

Echo Park dam (\$165,000,000) by Reclamation Commissioner Mike Straus, in the proposed plan to develop the Upper Colorado River. Also high on the list is Glen Canyon dam in northern Arizona. Next in importance comes Whitewater dam (\$40,000,000) in Colorado; Navajo dam (\$63,000,000) in New Mexico and Flaming Gorge dam (\$83,000,000) in Wyoming across the border from northeastern Utah. Among five projects recommended by Straus for later construction are Gray Mountain dam on the Green River and Split Mountain dam, 14 miles east of Vernal.—*Vernal Express*.

### FIELD CHANGES ANNOUNCED

Dillon S. Meyer, Commissioner of the Bureau of Indian Affairs, has announced several field changes. John O. Crow, Superintendent of the Mescalero Apache Indian reservation since 1946, has been transferred to the Colorado River agency, Parker, Arizona, as assistant Superintendent. Crow's transfer was requested by the Mescalero Business Committee. He will replace Harry L. Stevens, who has been appointed Superintendent of the Papago agency at Sells, Arizona. Burton L. Ladd, Superintendent of the Papago agency, will head the Carson agency at Stewart, Nevada. James M. Stewart, area director of the Sacramento, California, area office, will replace Ralph M. Gelvin as Superintendent of the Colorado River agency. Gelvin was recently appointed area director at Phoenix, Arizona.

## Pictures-of-the-Month Contest . . .

Every month two photographers win the honor—and the cash awards—that go with the presentation of their best work in Desert Magazine. The judges pass on scores of photographs in each of these Pictures-of-the-Month contests. When pictures are returned, a printed sheet is sent to the contestant showing why the picture failed to win the prize. And here are some of the reasons for rejection: (1) Photo is not essentially of the desert. (2) Insufficiently sharp and clear. (5) Not strong enough in light and dark contrast for good halftone reproduction. (4) Photo is weak in composition. (5) Subject is too commonplace. (6) Too grainy. (7) Too many scratches and abrasions. (8) We require glossy prints 5"x7" or larger.

The next Pictures-of-the-Month contest will be held in April, and all photographers, both amateur and professional (the amateurs generally win), are invited to submit their best prints.

Entries for the April contest must be in the Desert Magazine office, Palm Desert, California, by April 20, and the winning prints will appear in the June issue. Pictures which arrive too late for one month's contest are held over for the next month. First prize is \$10; second prize \$5.00. For non-winning pictures accepted for publication \$3.00 each will be paid.

### HERE ARE THE RULES

- 1—Prints for monthly contests must be black and white, 5x7 or larger, printed on glossy paper.
- 2—Each photograph submitted should be fully labeled as to subject, time and place. Also technical data: camera, shutter speed, hour of day, etc.
- 3—PRINTS WILL BE RETURNED WHEN RETURN POSTAGE IS ENCLOSED.
- 4—All entries must be in the Desert Magazine office by the 20th of the contest month.
- 5—Contests are open to both amateur and professional photographers. Desert Magazine requires first publication rights only of prize winning pictures.
- 6—Time and place of photograph are immaterial, except that it must be from the desert Southwest.
- 7—Judges will be selected from Desert's editorial staff, and awards will be made immediately after the close of the contest each month.

Address All Entries to Photo Editor

*The Desert Magazine*

PALM DESERT, CALIFORNIA

### TRUE OR FALSE

Questions are on page 12

- 1—False. The fangs are in the upper jaw of a rattlesnake.
- 2—False. The Indians pueblos are often two and three stories high.
- 3—True.
- 4—False. Goldseekers coming to California over El Camino del Diablo crossed the Colorado river at Yuma.
- 5—True.
- 6—True.
- 7—False. Winnemucca was a Paiute Indian.
- 8—False. The Mormon Battalion was led by Capt. Cooke.
- 9—False. A stand of beehives is known as an apiary.
- 10—True.
- 11—False. Furnace Creek was a watering place for miners, but not a gold camp.
- 12—True.
- 13—True.
- 14—False. Raton Pass is in New Mexico.
- 15—True.
- 16—True.
- 17—False. Basic Magnesium is at Henderson, Nevada.
- 18—True.
- 19—True.
- 20—False. Joseph Smith was the founder of Mormonism.

# Gems and Minerals

## COLORADO MINERAL SOCIETY OFFERS INFORMATIVE REPORT

Thirty-four of 50 mineral societies in the Rocky Mountain area, Southwest and Pacific Coast states, replied to a questionnaire relating to dues, mailed them by the Colorado Mineral Society of Denver.

Analysis of answers shows average annual dues of \$1.90 per person, with a minimum of \$1.00 and a maximum of \$5.00. In the case of those renting meeting places, dues average \$2.08 per person annually. Where no rent is paid, the average is \$1.78.

Fourteen societies pay an average rent of \$6.25 per meeting, with a low of \$1.00, high \$25.00. Only twenty clubs have cost-free gathering places. No society owns its own club room and only one mentioned having a building fund.

Money raising means, other than dues, are largely taken care of by auctions, raffles, fairs, carnivals, mineral shows, grab bags, passing the hat and collecting a percentage of money received by persons selling merchandise at meetings. No society reported funded backing, although eleven receive some support from donations. Only nine of the reporting societies charge an initiation fee, varying from \$1.00 to \$5.00, with an average of \$2.00 per person.

Since rock-hounding is an excellent family hobby, it is surprising to note only three societies have a flat family rate, averaging \$2.67 per family annually. Three other clubs have reduced rates for each additional member of the same family. Six have junior rates, averaging 99 cents annually. Minors are not accepted in some societies because of responsibility and liability involved on field trips, etc.

Two societies volunteered the information they were incorporated under the laws of their states. The Colorado Mineral Society feels "incorporating" might be a good subject for study and report by the American Federation of Mineral Societies or regional federations. Financing, designing, operating and maintaining meeting places, are other subjects on which many might also like information.

## GEM SHOW AND DESERT SHRINE DEDICATION ARE PLANNED

The Coachella Valley Gem and Mineral Show, held at the Indio, California, Fair grounds each spring, is scheduled for March 30 through April 1 this year. Hundreds of private collections will be shown as well as Indian lapidary relics and dealer exhibits. Outstanding among the gems will be the largest star sapphire in the world, owned and cut by Kazanjian Brothers of Los Angeles. A field trip to the bloodstone area off Salt Creek Wash near Salton Sea, is scheduled to leave the Fair grounds Saturday morning at 8 o'clock. The beautiful gems and magnificent rock specimens at the show will appropriately portray the thought sponsoring the Desert Trails dedication of a Shrine "for all who travel the desert trails" to be held at the *Desert Magazine* pueblo in Palm Desert at 11 a.m., Sunday, April 1.

## EL PASO ROCKHOUNDS HOLD INSTALLATION CEREMONY

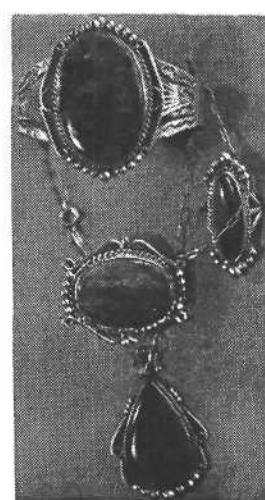
On the evening of January 26, the El Paso Mineral and Gem Society held its annual banquet and installation of officers at the Wyoming Inn Banquet Room. After a turkey dinner, served on a table decorated with mineral specimens over which climbed small "hounds," the following officers were installed: J. H. Leisure, president; George Zurian, vice president; Mrs. R. H. Miller, secretary; Mrs. A. L. Patterson, treasurer. Professor Wm. Strain, guest speaker, talked on "Searching for Pre-Historic Animals in the Southwest."

## ST. VALENTINE SUPPER SERVED GEM CLUB

The Victor Valley, California Gem and Mineral Club enjoyed a St. Valentine supper at the February 7 meeting. Table decorations and favors featured the heart motif. A film in technicolor, showing the natural resources of Ohio and the mineral activities, was a highlight of the evening. The club is sponsoring a series of gem stones and silver work displays in the window of the Globe Insurance office, giving everyone a chance to see the beautiful work of club members.

## SAN JOSE LAPIDARY SOCIETY PLANS OUTSTANDING SHOW

The sixth annual Gem Show of the San Jose Lapidary Society has been planned for April 21 and 22, in the San Jose Woman's Club Auditorium; 10 a.m. to 9 p.m. both days. The society is strictly an amateur organization. Everything on exhibition will be the work of some member. There will be nothing for sale and admission is free to everyone interested in rocks and lapidary work. This year the society is featuring education in lapidary. Information will be available on where the rough material comes from, how it looks when slabbed and the finished gem. Visitors are invited to ask questions.



## ALTA INDUSTRIES

Lapidary Equipment Manufacture and Design

16-18 inch power feed slabbing saw  
Belt sanders, including ball bearing  
Drill press  
Grinding arbor and trim saw  
Send postal for free literature

## ALTA INDUSTRIES

4613 Central Ave. Phoenix, Arizona  
Visitors Welcome

## Agate Jewelry

### Wholesale

Rings — Pendants — Tie Chains  
Brooches — Ear Rings  
Bracelets — Matched Sets  
—Send stamp for price list No. 1—

## Blank Mountings

Rings — Ear Wires — Tie Chains  
Cuff Links — Neck Chains  
Bezel — Clevices — Shanks  
Solder — Findings  
—Send stamp for price list No. 2—

## O. R. JUNKINS & SON

440 N.W. Beach St.  
Newport, Oregon



ALLEN  
JUNIOR  
GEM  
CUTTER

A Complete Lapidary Shop  
Only \$42.50

- Ideal for apartment house dwellers.
- Polish rocks into beautiful gems.
- Anyone can learn.
- Instructions included.

Write for Catalog, 25c

## ALLEN LAPIDARY EQUIPMENT COMPANY — Dept. D

3632 W. Slauson Ave., Los Angeles 43, Cal.  
Phone Axminster 2-6206

## Here Are The Gifts You've Been Looking For!

Petrified Wood, Moss Agate, Chrysocolla  
Turquoise, Jade and Jasper Jewelry

HAND MADE IN STERLING SILVER

Bracelets, Rings, Necklaces, Earrings  
and Brooches

SPECIALLY SELECTED STONES WITH  
CHOICE COLORS AND PICTURES

Write for Folder With Prices

## ELLIOTT'S GEM SHOP

235 East Seaside Blvd. LONG BEACH 2, CALIF.  
Across from West End of Municipal Auditorium Grounds  
Hours 10 A. M. to 9 P. M. Daily Except Monday

# GEM MART

ADVERTISING RATE  
8c a Word . . . Minimum \$1.00

BLACK ONYX blanks 25c each. Red Onyx blanks 35c each. Green Onyx blanks 35c each. Prompt service given to mail order jobs. All kinds of fine cutting. Juchem Bros., 315 W. 5th St., Los Angeles 13, California.

100 POUNDS of Copper and Crystal specimens \$25.00. Will take part in rocks in trade. 1 Copper specimen \$1.00, 1 Calcite specimen \$1.00. 1 Aragonite specimen \$1.00. All 3 \$2.50 postpaid. L. M. Jones, Box 307, Bisbee, Arizona.

IF YOU ARE A ROCKHOUND you need the Lapidary Journal. Tells how to cut and polish rocks, gives news of all mineral-gem groups. Tells how to make jewelry, carries ads of dealers in supplies, equipment, gems, minerals from all over the world. Well illustrated, beautifully printed. Subscription \$2.00 a year—back numbers 50c. Sample Copy 25c if you have never subscribed or been sampled. LELANDE QUICK, Editor, Palm Desert, California.

FOR SALE: Beautiful purple Petrified Wood with Uranium, Pyrolusite, Manganite. Nice sample \$1.00. Postage. Maggie Baker, Wenden, Arizona.

FLUORESCENT MINERALS (Franklin, N. J.) Superb specimens of Calcium Larsenite with Willemite and Franklinite. Fluoresces vivid yellow and green. Some specimens also contain Calcite and fluoresce vivid yellow, green and red. \$3.00 to \$15.00. Willemite or Calcite, Willemite and Calcite, 5 beautiful specimens (2x2) \$5.00, single specimens \$1.10, small pieces \$1.50 per lb. Larger specimens in stock. Other specimens non-fluorescing. Inquiries invited. Postpaid, money back guarantee. Fred W. Morris, 8804 19th Avenue, Brooklyn 14, New York.

TEXAS BLUE TOPAZ—Fine facet grade gem material, Blue \$1.25 a gram, Blue-white, 50c a gram. Agate (Texas) mixed yellow, red, green moss, bands, etc., 75c & up per pound. Selected slabs sent on approval to reliable persons, 50c to \$5.00 each. B. & H. Gem Shop, Box 4132, Austin, Texas.

## THE COMPTON ROCK SHOP

A Friendly Place to Shop

SLABS MINERALS SUPPLIES  
LAPIDARY EQUIPMENT

Closed Sunday and Monday  
Open Tuesday Eve. till 10:00 P.M.

Tel. Newmark 29096  
1409 S. Long Beach Blvd., Compton, Calif.



Model SL  
ULTRA VIOLET LAMP

Easy to use in field, office or lab.

## MINERALIGHTS

In a jiffy, you pick up fluorescent minerals 10 to 20 feet away.

Now, as always, MINERALIGHTS are powerful Ultra-Violet lamps.

Examine tiny particles or huge boulders with equal ease.

Rugged equipment for field—ideal prospecting lamps.

Approved by thousands satisfied with years of use.

Light weight, too. Select the model for your exact needs.

Intense Ultra-Violet—not just a glow. Specimens are easily seen.

Good selection of models. Shortwave or Longwave.

Handy as can be—no changing of parts for different objects.

To identify many minerals instantly, use MINERALIGHT.

Moderately priced from \$12.50

SEND FOR ILLUSTRATED FOLDER SL21

## ULTRA-VIOLET PRODUCTS, Inc.

South Pasadena, California

SEE YOUR DEALER

## AMONG THE ROCK HUNTERS

Speaker at the February meeting of the Chicago Rocks and Minerals Society was Edwin Goff Cooke, camera hobbyist, lecturer and popular member of the club. His subject, "They Too Passed By," covered the early cultures that once flourished at Frijoles Canyon at Bandelier National Monument, New Mexico. Other sites of archeological interest which he discussed were those at Chaco Canyon National Monument in New Mexico, Canyon De Chelly and Tuzigoot National Monuments, both in Arizona. The lecture was illustrated by colored slides and movies taken by Mr. and Mrs. Cooke.

• • •

The Sacramento, California, Mineral Society has announced the following officers for 1951: Allan Engstrom, president; George Winslow, vice president; Dagmar Linnet, recording secretary; L. H. Lincoln, financial secretary; Clyde Gates, treasurer; Betty Golden, librarian. Arthur Benny of Santa Rosa was scheduled to speak on "Mounting Cut Stones and Making Jewelry" at the February 23 meeting.

• • •

On February 9 the Mineral and Gem Society of Castro Valley, California, enjoyed talks by three members. Mrs. Gladys Luce, director of the society, described her trip to the southern California and Nevada deserts. Carl "Cappy" Ricks told of his search for fire opals in Virgin Valley. F. M. Buhn spoke on his trip in search of Horse Canyon agates in Kern County. Details of the Society's third annual Mineral and Gem Show, scheduled for April 7-8 in the Library of the Hayward Union High School, were discussed.

• • •

The Los Angeles Lapidary Society meets the first Monday of every month at the Van Ness Playground at Slauson and Second Avenues, Los Angeles. Visitors are always welcome. The Faceteers, a branch of the Lapidary Society, meet the third Monday of each month. Mrs. Dorothy Alford, is the first woman to serve as chairman of the group. Dr. Owen B. Dwight talked on casting natural objects, such as leaves and flowers, in gold and silver, at a recent meeting of the Lapidary Society. Because of its similarity to the lost wax method of casting, he calls it "the lost leaf" method. Dr. Dwight displayed his collection of leaves and flowers, so exquisitely perfect as to mark him an expert.

• • •

The Calaveras, California, Gem and Mineral Society has scheduled its annual Gem and Mineral display and auction for Saturday and Sunday, April 28-29. The Clubhouse is located near Highway 49 between Angles Camp and San Andreas. All interested are cordially invited to attend.

• • •

The Tacoma Agate Club, Tacoma, Washington, meets the first and third Thursdays of each month at the St. John's Church. At the first meeting of the year Roy Allen reported on Montana agate. There were three door prizes. The first, a specimen of petrified walnut wood, donated by Henry Dierck, was won by Mrs. W. Beckim. At the second January meeting Jack Haberlin, president of the Sebac Club, talked on the gold mining communities of Grass Valley and Downieville, California, where mines have been in operation over 100 years. Refreshments were served at both meetings.

## SOCIETY MEMBERS HEAR THE STORY OF ROCKS

At the February meeting of the Santa Monica, California, Gemological Society, Lelande Quick, editor of *The Lapidary Journal*, told the story of rocks from the time the first man sharpened them for use in hunting and defense to the present era of rockhounds. In his talk, "The Second Stone Age," he dated the beginning of rock collecting and polishing in the early 1930's, when lapidary information became available to hobbyists. Guests at the meeting included members of Los Angeles, Hollywood and Mojave, California, societies as well as a group from Tacoma, Washington. An assortment of minerals, featuring howlite, was arranged for display. A February field trip to Tick Canyon, in search of howlite, is scheduled.

• • •  
The San Gabriel Valley, California, Lapidary Society held its regular meeting February 13 at the Washington School in San Gabriel. Members include rockhounds from Monrovia, Arcadia, Alhambra, Temple City and San Gabriel. Following installation of officers, Dr. Richard Jahn, professor of Geology at the California Institute of Technology, gave an illustrated lecture on gems and minerals of southern California, with emphasis on the Pala Chief Mountain mines in San Diego County. A January field trip to the desert north of Mojave netted some fine specimens of petrified wood.

• • •  
The monthly bulletin of the Compton Gem and Mineral Club, "The Rock Hound's Call," is published the first Tuesday of each month at the Compton Rock Shop. A field trip to Dry Lake, near Boron, California, is planned for the last week end in February.

• • •  
Members of the Dona Ana Rockhound Club of Las Cruces, New Mexico, are conducting classes aimed at making "rockhounding" more enjoyable. They have finished a complete study of the quartz family. The next topic, will be a study of crystal forms, which will attempt to show the crystal relationship of as many specimens as possible. Bill Purvis is in charge. January's field trip to the Little Floridas netted agate and jasper with Mrs. J. C. Patty making the best find, a geode.

• • •  
Regular meetings of the Long Beach, California, Mineral and Gem Society are held at Belmont Recreation Center the second Wednesday of each month. Dr. Richard Swift, formerly with the British Museum working on excavations in Egypt, was scheduled to speak on Egyptian lapidary work at the February 14 meeting.

• • •  
On January 14 the Tourmaline Gem and Mineral Society of La Mesa, California, enjoyed a field trip to In-Ko-Pah Gorge near the San Diego County border. At the top of a steep, cactus covered ridge they chiseled garnets from the rocks. Color varied from orange to reddish brown with better quality stones small. New officers are: Ralph Potter, president; Whitney Hines, vice president; Mrs. Arthur Gray, secretary; Mrs. Cecil Manley, treasurer; Lucille Kennedy, publicity chairman.

• • •  
Officers of the Hollywood Lapidary Society are: Eric Stone, president; Dr. Alex Anderson, vice president; Ruth Kephart, treasurer; Dorothy Van Nostrand, recording secretary; Diane Hougaard, corresponding secretary.

The Mineralogical Society of Phoenix, Arizona, holds its meetings the first and third Fridays of the month, October through May. At the first meeting of 1951, Barclay Bitner showed Kodachrome slides of Arizona, Utah and Colorado. On auction night, January 19, over \$60 was made from donations. Dr. Paul Miller of Arizona State College, Tempe, was elected Honorary Member. A field trip to Mummy Mountain was scheduled for February 11 and another to the geode area east of Wickenburg, on February 25.

• • •  
The Yavapai Rockhounds, official publication of the Yavapai Gem and Mineral Society, Prescott, Arizona, celebrated its first birthday in January. Ray Shire is editor.

• • •  
The first anniversary meeting of the Humboldt Gem and Mineral Society of Eureka, California, was held January 26, with J. J. Bognuda as guest speaker. Bognuda, seismologist in charge of the government seismograph station at Ferndale, California, was educated in Tokyo. After a rock raffle, refreshments were served.

• • •  
"Scenic Southern Utah" was the subject of the January meeting of the Los Angeles Mineralogical Society. B. A. Hendryx, of Panguitch, Utah, spoke on the geological relationship between rock strata found in Capitol Reef, Cedar Breaks National Monument, Bryce and Zion Canyons and the North Rim of Grand Canyon. Kodachrome slides of those areas as well as of the less accessible Rainbow Bridge, Soda Gulch, Hole-in-the-Rock, Lost Valley of the Goblins and the Escalante Desert were shown.

• • •  
Newly elected officers of the Northern California Mineral Society of San Francisco, California, have been announced. George Dingmann will serve as president; Cecil Iden, vice president; David Friedman, treasurer; Dorothy Cole, secretary. First regular meeting for 1951 was scheduled for February 14, with a movie in sound and color by the Richfield Oil Company, entitled "California and its Natural Resources." A door prize, donated by Harold Newman, lapidary work exhibits by Newman and mineral specimens by Wilhelm Haedler, were planned.

• • •  
The 1951 Rocky Mountain Federation Convention will be held in Phoenix, June 8-9-10, at Phoenix College. Make arrangements for dealer space through Peggy M. Kelley, Route 5, Box 554, Phoenix, Arizona. Information regarding Competitive Exhibits may be obtained through secretaries of affiliated societies or through Ben Humphreys, Cashion, Arizona. Secretaries may request extra copies of Classification of Competitive Exhibits.

## ROCK AND GEM GROUP HAS DINNER AND FIELD TRIP

The Fallon, Nevada, Rock and Gem Club held the early February meeting at the home of Mr. and Mrs. Oscar Engebretson. After the business meeting the hostess served buffet turkey supper. The official Rockhound emblem, designed by William Walker of California, was discussed. These emblems are made of gold or silver, with pick and shovel and the words, "Rockhounds of America," engraved on them. The field trip netted jade, petrified wood and ancient Indian spear heads. They encountered Mr. and Mrs. M. E. Heikkola from McCall, Idaho, who showed the Fallon group many specimens of cut and polished stones from Idaho.

• • •  
Pyrite, which is a mixture of pyrite in cubes and marcasite in plates, was worked by ancient Aztecs into mirrors and other objects. The mirrors were usually semicircular on one side and polished flat on the other. The rounded side was often curiously carved and decorated.

### INDIO MINERAL SHOW

March 30 — April 1

We'll see you there

J. C. FILER & SON

1344 Hiway 99  
San Bernardino, California

### NEW CATALOGS AVAILABLE

If you want Choice Cutting Material, Fine & Rare Minerals, Geiger Counters, Mineralights, Books, Trim Saws, Fluorescents, Ores, Gems, Ring Mounts, or advice, write to . . .

MINERALS UNLIMITED  
1724 University Ave., Berkeley 3, California

### ROCK and GEM HOBBY SHOP

Rock Cutting — Rings Mounted to Order

FELIX V. BRADDI, Owner

Stones Ground and Polished

Uranium Ore Tested—Western Jewelry

1959 Harbor Boulevard

COSTA MESA, CALIFORNIA

### FAMOUS TEXAS PLUMES

Pick up your own for 25c a lb., or choose from my tables. Red plume and many other types of agate. 17 miles south of Alpine. Road paved. Price list on request. Orders filled promptly. Postage please.

Get acquainted offer—8 lb. mixture postage paid, \$5.00. Satisfaction Guaranteed.

WOODWARD RANCH

Box 453 Alpine, Texas

BEFORE YOU BUY SEND FOR OUR BIG FREE CATALOG

The world-famous HILLQUIST LINE of lapidary equipment

LAPIDARY EQUIP. CO. 1545 W. 49 ST., SEATTLE 7, WASH.

New officers of the Clark County Gem Collectors of Las Vegas, Nevada, are Cortez Cooper, president; Charles Hamilton, vice president; Myrtle Mercer, secretary; Paul Drury and Alexander Boyle, directors. Meetings are every second Thursday with field trips every third Sunday of the month.

3 Beautiful slabs of Mexico Iris Agate, 1 Sagenite and 1 Tex. Plume for \$5.00. Colorful Texas Moss and Plume at \$1.00 per lb. Mexico nodules at \$1.00 per lb. in Banded and Fortification varieties. \$5.00 minimum order. Postage extra. Satisfaction guaranteed. (Also many fine gem materials.)

**SOUTHERN GEM & MINERAL CO.**  
(The Barrons)  
P.O. Box 5074, El Paso, Texas, Phone 3-4972

### INVENTORS

When you are satisfied that you have invented a matter of value write me, without obligation, for full information on what steps you should take to secure a Patent.

**PATRICK D. BEAVERS**

Registered Patent Attorney  
1023 Columbian Bldg., Washington 1, D.C.

### The CONLEY Co. JEWELRY MOUNTINGS

ILLUSTRATED CATALOGUE AVAILABLE

  
The superb finish and fine craftsmanship of CONLEY'S ELKHORN LIFETIME PATTERN in 3-tone gold filled enables you to create exquisite jewelry equal to the finest professional shop. Other CONLEY mountings in Gold-Filled—Silver and Plate. Lowest Possible Prices Consistent with Quality—Insist on Conley Quality. AVAILABLE AT ALL BETTER DEALERS or write us

W. 715 Riverside Ave., Spokane, Wash.

	Per Pound
Snowflake Obsidian	\$.75
Star Agate, Fluorescent	.50
Grape Agate	.50
Petrified Wood, strong in Carnotite	1.00
Finest Petrified Wood	\$1.00 to 3.00
Finest Dinosaur Bone	1.00 to 4.00
Blue banded, Carnelian, Pigeon Blood Agates	1.00
Lime Onyx for book ends & spheres	.50
Selenite Crystals, all sizes, clearest known	.40
Septrian Nodules, all sizes	.25
Lime Onyx book ends, unpolished per pair	\$6.00 to 10.00
Utah Picture Rock 7c per inch Slabbed stuff 30c to 60c per sq. in.	
Postage and cash with order please	

**HUBERT'S ROCK SHOP**  
Utah Rocks and Minerals  
Springdale, Utah

### A NEW BOOK

### "Gem Trail Journal"

By  
**DAROLD J. HENRY**  
Price \$2.00 Postpaid

California Residents add 6c tax

#### — Contents —

Over 50 maps and excellent locations  
Over 90 localities mentioned  
Over 40 treated in detail  
Over 32,000 words of wisdom for the collector  
Over a score of brand new places to collect  
All locations described by an author who "Has Been There" . . . recently.  
We are National Distributors for this Book

**GORDON'S**

Gem & Mineral Supplies  
1850 East Pacific Coast Highway  
Long Beach 6, California

### DELIVERS GEM AND MINERAL SOCIETY PLANS BUSY YEAR

At the January 9 meeting of the Delvers Gem and Mineral Society, Downey, California, the following officers were unanimously elected for 1951: Leland Bergen, president; John Tubbs, vice president; Richard Jackson, secretary; Woody Ballou, treasurer. A late January field trip took members to Bullion Mountains, 35 miles north of Joshua Tree, where nice gem agate and jasper was picked up on Rockhound Rise. At the February meeting a motion picture followed plan discussions for a Rock and Lapidary Show to be held May 6 at the Downey Woman's Club House. The February Field trip will be to Trona for Death Valley Onyx.

"Agates" was the topic chosen by Elbert McMacken when he spoke at the first January meeting of the San Diego, California, Lapidary Society. At the January 10 meeting, Eris H. Manning, an Alaska mining engineer, told of mining activity, topography and transportation in that area. He pointed out that gems in Alaska are usually found by accident, when prospectors and engineers are searching for gold. Asked about "ice worms," he said when conditions were right they multiply so fast they color the snow pink.

The Kern County Mineral Society of Oildale, California, trekked to Boron January 14. Some found excellent pieces of petrified wood. All enjoyed the perfect weather. Meetings are held the second Monday of each month at the Elliott Community Hall in Oildale.

Emil H. Spillmann was elected president of the Austin, Texas, Gem and Mineral Society at the December meeting. Serving with him are: Dr. Stephen Calbaugh, vice president; Mrs. W. M. Branch, secretary; E. A. King, treasurer. A special feature of the January meeting was "Swappers Night" with members exchanging specimens, sometimes several times. On January 14, Willard Culver, staff photographer of the *National Geographic Magazine*, took pictures of a topaz hunt, staged especially for him by the society. Everyone making the trip found topaz.

Officers of the Marcus Whitman Gem and Mineral Society of Walla Walla, Washington, are: D. R. Irwin, president; G. W. Weber, vice president; Y. P. Winans, secretary; Mrs. A. W. Norquist, treasurer. The society, named in honor of Marcus Whitman, early northwest pioneer and missionary, meets the second Tuesday of each month in the Chamber of Commerce rooms.

At a recent meeting the Cedar City, Utah, Rock Club enjoyed an interesting discussion on the use of light to detect minerals. Prof. Parley Dalley of the Branch Agricultural College was the speaker. Ken LeSear exhibited fluorescent rocks, as a basis for Prof. Dalley's talk. Plans were discussed for a field trip to Dixie Grapevine Springs near Leeds in Washington County, and to Berry Springs between Highway 91 and Hurricane.

The Orange Belt Mineralogical Society held its February meeting at Valley College in San Bernardino, California. John Vonday spoke on "Some Things About Diamonds," giving many interesting and little known facts about this valuable stone. He said the first diamonds came from India during the 16th century and that jewelers call diamonds flawless instead of perfect.

### STORY TO FEATURE TUCSON ROCKHOUNDS

David Record, publicity chairman of the Tucson, Arizona, Gem and Mineral Society, reports the *National Geographic Magazine* will carry a story on rock and mineral collecting in the southwest later in the year. Willard R. Culver, Geographic photographer from Washington, D. C., spent three days in Tucson, interviewing local collectors, touring southwestern Arizona mineral deposits and taking both color and black and white pictures.

The "silent auction" conducted at the January meeting of the Denver, Colorado, Mineral Society has been reported a financial success, \$109.25, all profit since specimens were donated. Door prize at the meeting was won by Mrs. Lawrence Cliver.

The Columbine Gem and Mineral Club of Salida, Colorado, elected the following officers for 1951 at the January 16 meeting: Archie Gunnow, president; Charles Elofson, vice president; O. D. Elarton, secretary; Mrs. R. V. Pierce, treasurer. After the election and a discussion of future programs, including field trips, Mrs. Gunnow served refreshments.

The Oklahoma Mineral and Gem Society held the first meeting of 1951, January 4 at the City Federation Club house. James C. Holden took members on an imaginary trip to Bogota, Colombia, where big emerald mines are located. At the conclusion of his talk he displayed a 21½ carat cushion cut emerald from Bogota.

"A Day with Bob Ames" might serve to summarize the activities of the Junior Rockhounds of Prescott, Arizona, on February 10, when four appeared on his radio program and then, with others, trekked along Black Canyon highway to a point south of Gordes. They found chalcedony and quartz crystals. Each was given a specimen of Yavapai Onyx at the American Onyx Products at Mayer. They were shown how Onyx is cut with a diamond saw.

It is said that diamond experts can not only tell you from which country a cut stone originated, but in many cases the actual mine from which it was taken.

An account of the fabulous gem mines of the Golconda in India, appeared in "Travels in India" by Tavernier. He visited the mines in the 1670's when they were at the peak of their prosperity.

E. C. Brookins was elected president of the Gem County Rock and Mineral Society of Emmett, Idaho. Other officers are: A. R. Albee, vice president; Mrs. A. W. Johnson, treasurer; Alfred Perry, publicity director; Mrs. A. R. Albee, secretary.

Spanish historians, in their stories of wonders seen in Mexico at the time of the Conquest, describe the image of Quetzalcoatl, the mystic deity on the great pyramid of Cholula, as wearing a mitre waving with plumes of fire, an effect believed to have been produced by mosaics of fire-opal.

The Veterans Administration gave awards to four members of the San Fernando Valley, California, Mineral and Gem Society on January 30, for volunteer services at the San Fernando Veteran's Hospital. Caroline Turner has devoted one day a week for five years to teaching ceramics; John Austin, one year to photography; E. F. Tuttle, one year to lapidary and jewelry and L. E. Watson, one year to lapidary. Members of the society have contributed cutting material through Mr. Watson.

# AMATEUR GEM CUTTER

By LELANDE QUICK, Editor of The Lapidary Journal

Lawrence O. Chapman of Franklin, N.J., writes that he notices references now and then in the lapidary literature to "stone burns." He wants to know what they look like because he doesn't understand the term.

If Mr. Chapman is an amateur gem cutter and he has never seen a stone burn he is a very lucky man. In fact he isn't even initiated into our fraternity if he has not had the experience of laboring faithfully over a treasured piece and then with the high satisfaction that comes with a perfect grinding to an ellipse and an excellent sanding job he goes to his felt polisher. Fairly drooling in anticipation of the beautiful polish he is about to acquire on his masterpiece he presses it hard to the felt buff, thickly daubed with his favorite polishing powder and almost dry. Then he holds it under the light to see how it is coming along and he sees the beautiful blue of his turquoise cab has turned to black, or the more beautiful blue of his chrysocolla gem has white freckles. A sinking feeling comes over him that's worse than receiving a letter from his draft board that begins with "Greetings, etc., etc." Brother, that's a stone burn! Don't look now—but your grip's showing. Too much pressure means too much heat and too much heat means cracks and "burns."

We don't believe as many amateurs experience this nightmare today as they did ten years ago because they approach the grinding bench with greater knowledge, gleaned from a book they purchased or advice they received from an experienced cutter. Many a chrysocolla gem was ruined for us until we learned the hard way that we should use a leather buff and keep it very wet rather than attempt to do every stone on our felt buff. When we learned to touch the cab to our cheek frequently to feel how hot it was we finally got away from burns for it didn't take long to realize that when the stone burned our sensitive cheek it was time to allow it to cool and time to apply plenty of water to the buff and to thin the powder by pouring in more water.

There probably has never been a beginner who used too much water when polishing and there probably never was a beginner who didn't use more powder to polish his first dozen stones than a professional uses to polish a thousand. The beginner must learn that it isn't true that if a little powder gives a good polish a lot of it should do a super job.

We use a cracked saucer in an old cigar box and a small cheap paint brush for our equipment. We keep the tin oxide in a big salt shaker and once in a great while we sift about two teaspoonfuls into the saucer and fill it with clean water. We stir this well with a chop stick and allow it to settle. When we are ready to polish on a felt buff we soak a rag in water and "wash" the felt wheel (moving) until it is thoroughly soaked with clean water. Then we agitate the polishing mixture just a little with the paint brush and apply the watery powder to the center of the wheel, letting centrifugal force spread it to the outer edge. We then start the cab at the outer edge and work toward the center, using only enough pressure to keep the cab on the buff. It must be at least eight years since we "burned" a stone and we're still working on a pound of cerium oxide we bought that long ago.

It is because of bad experience in burning stones that many lapidaries throw the felt wheel into the trash can and use a leather wheel from there on. We believe this is wrong for much time is saved using a felt buff on hard materials like agate, while softer materials polish better on leather. If it is true in faceting that "the harder the material the harder the lap" then it should be equally true with cabochons that the softer the material the softer the buff.

Of course many a stone is "burned" before it ever reaches the polishing buff. That is to say it becomes cracked because of too much heat in the grinding or sanding operations—too much heat from too much pressure. The whole solution is patience. The impatient lapidary wants to hurry the work and the best way to hurry it is to press hard and grind and sand faster. But the resulting heat cracks the gem and breaks the heart.

Against this impatience a correspondent (Brooks Shepard of Saxtons River, Vt.) writes—"I've thought a lot about this problem of impatience because it has wasted more of my possible ability than any other weakness I can recall. In my early gem grinding experience my worst mistake was that of pressing too hard against the wheel. I've talked with a few other amateurs and a couple of professional men about this natural impatience and it seems to be almost universal among beginners and not unknown among professional lapidumbells. It's the leisurely attitude that counts. I use enough pressure to make a common house fly uncomfortable but not quite enough to squash it—a delicate distinction but you'll get it if you haven't forgotten your barbarous childhood. When I'm tempted to hurry I slow myself with this thought 'About 80,000,000 years ago the dark Creator of an untamed universe dashed off this little hunk of rock. He spent a couple of hundred thousand years on it. You think it has artistic possibilities and you're right. And now, you hasty old fool, you can afford to spend half an hour in shaping that rough sketch into something the original Artist wouldn't gag at when He saw what you'd done with it. Take your time!'

"I have found that even the meanest mind is bothered by the problem of how fast to sideswipe while you shape your stone. Assuming that you have a really good light on your wheel (which you probably haven't but eventually will) your rectangular cabochon offers no problem. You wobble it slowly back and forth in a straight line across the wheel, while the unheeded spray saturates your shirt and seeps under your belt into your undermuslins. But a different and very complicated problem arises when you take a round or oval hunk of potential glory. The mental problem is that you have to keep your angle of attack fairly constant, not fussy accurate, for the final slope-angle correction is very easy. You have to keep your wheel smooth by sideswiping your gem across the face of it."

## FIRE OPAL MEXICO

10 Small Pieces Average $\frac{1}{2}$ ".....	\$1.00
5 Larger Pieces Average $\frac{3}{4}$ "—1"....	1.00
12 Nice Pieces Cherry & Honey Opal	1.00
(Suitable for Cabochons)	
1 Small Vial Clear Fire Opal.....	1.50
1 Large Vial Clear Fire Opal.....	3.00
	\$7.50

Entire Lot Postpaid for \$5.00

Satisfaction Guaranteed or Money  
Cheerfully Refunded

Prompt Shipment on all Sizes  
Felker Diamond Saw Blades

**RALPH E. MUELLER & SON**

307 Admiral Blvd. • Kansas City 6, Mo.

## Covington DIAMOND BLADES

"Treat yourself to the best"



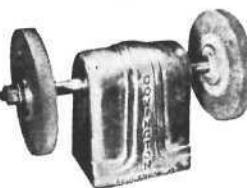
Heavy-Duty Super-Chgd.	Super- Charged	Standard Charged
6"	\$ 8.60	\$ 7.60
8"	10.95	9.95
10"	14.50	13.35
12"	21.20	17.65
14"	27.95	24.45
16"	31.20	27.70
18"	62.50	41.25
20"	74.25	49.50
24"	88.80	62.60
30"	142.50	119.75
36"	215.30	179.10

State sales tax in California. Size

Allow for Postage and Insurance

## Covington Ball Bearing Grinder

and shields are  
furnished in 4  
sizes and price  
ranges to suit  
your require-  
ments. Water and  
grit proof.



## COVINGTON 8" TRIM SAW



and motor are com-  
pact and do not  
splash. Save blades  
and clothing with  
this saw.

## BUILD YOUR OWN LAP

and SAVE with a COV-  
INGTON 12" or 16" Lap  
Kit. We furnish every-  
thing you need. Send  
for free catalog.



SAVE  
BLADES

Send for New Catalog, IT'S FREE

**COVINGTON LAPIDARY SUPPLY**  
Redlands, California

# MAPS for those who travel the desert country . . .

More than 300 maps, especially drawn by Norton Allen for your guidance, have appeared in past issues of Desert Magazine—maps to ghost towns, to lost treasure areas, to gem and mineral fields, to historical landmarks—maps of forgotten trails and of the newest roads. Desert Magazine's maps are accurate and easy to follow—they are the most accurate guides you can obtain to a thousand places

## MAPS FOR TRAVELER AND EXPLORER . . .

Dec. '45—Palms in Pushawalla Canyon. MAP  
Apr. '46—Palms That Grow in Cat Canyon. MAP  
May '46—By Jalopy Through "The Sweepings of the World." MAP  
Jun. '46—Hopi Trek to the Land of Big Water. MAP  
Jul. '46—Palm Hunters in the Inkopah Wastelands. MAP  
Freak Rocks in Nature's Wonderland.  
Aug. '46—We Camped at Cantu Palms. MAP  
Sep. '46—We Found the Hidden Shrine of Old Makai. MAP  
Oct. '46—Atomic Man in the Haunts of the Ancients. MAP  
Nov. '46—Glyph Hunters in the Indian Country. MAP  
Dec. '46—We Explored Dark Canyon, Utah. MAP  
May '47—Day in Grapevine Canyon. MAP  
Jun. '47—Palms That Survived in Cloudburst Canyon. MAP  
Jul. '47—Golden Harvest at Aurora. MAP  
Aug. '47—Mastodons of Moab. MAP  
Sep. '47—Oasis on Bear Creek. MAP  
Oct. '47—Don't Knock at a Hogan Door. MAP  
May '48—Fishing Village on the Gulf. MAP  
Jun. '48—Daddy of the Palm Canyons. MAP  
Jul. '48—On Kino's Trail to Pozo Verde. MAP  
Aug. '48—Utah's Incredible Arch of Stone. MAP  
Sep. '48—Haunted Silver. MAP  
Mar. '49—Country of the Standing Rocks. MAP  
Jun. '49—Ancient Artists Lived on Rattlesnake Peak. MAP  
Jul. '49—On Hassayampa Trails. MAP  
Aug. '49—Indian Country Trek. MAP  
Sep. '49—They Left Their Story in the Desert Sands. MAP  
Oct. '49—19 Days on Utah Trails. MAP  
Nov. '49—19 Days on Utah Trails. (Cont.) MAP  
Dec. '49—Valley of the Cathedrals. MAP

TRAVEL AND EXPLORATION SET, 30 mags. \$5.00

## FOR THE LOST TREASURE HUNTER . . .

(8 of these stories include maps)

Aug. '46—John D. Lee's lost gold mine, Ariz.  
Nov. '46—Lost Pegleg gold not a myth, Calif. MAP  
Dec. '46—Treasure Hunt on the Salt Desert, Utah. MAP  
May '47—Searching for lost cities of the desert.  
Jun. '47—Lost quartz-silver vein, Calif. MAP  
Sep. '47—His Compass Was a Burro's Tail, Ariz. MAP  
Mar. '48—Guadalupe gold, Texas  
Jun. '48—Tim Cody's lost gold ledge, Nev.  
Jul. '48—Lost Treasure of del Bac.  
Sep. '48—Haunted Silver in Arizona. MAP  
Oct. '48—New Clues to Pegleg Gold. MAP  
Dec. '48—Emerald Mine in Santa Rosas.  
Jan. '49—Lost Squaw Hollow Gold Ledge, Arizona.  
Feb. '49—The Potholes Placer, Utah.  
Apr. '49—Lost Lead-Silver Mine in Nevada.  
Jun. '49—There's Placer Gold in the Desert Bajadas.  
Feb. '50—Lost Gold of Salt Spring. MAP  
May '50—Swamper's Gold.  
Jun. '50—On the Trail of Alvord's Gold. MAP  
Jul. '50—Lost Mine of Coconino.  
Sep. '50—Silver Mine of the Old Opata Indians.

LOST TREASURE SET, 21 magazines . . . \$3.50

## ORDER AS MANY ISSUES AS YOU WISH

One copy 25c; Six for \$1.00; 12 for \$2.00

The entire set of 44 different magazines for \$7.00

## LOOSE LEAF BINDERS FOR PERMANENT FILING WILL BE SUPPLIED FOR \$2.00 EACH

Each binder has space for 12 copies

of interest in the Southwest.

A limited number of back issues of Desert containing these guide maps are still available and can be supplied—in complete copies of the magazine—at less than 17 cents each. These magazines also contain many other maps not listed below. Here are those available, classified for easy reference:

## MAPS FOR THE ROCK HUNTER . . .

Apr. '46—Beach Stones Along the Colorado. MAP  
May '46—Green jasper, near Lake Mead, Nevada. MAP  
Jun. '46—Agate, chalcedony, etc., Arizona. MAP  
Aug. '46—Fossils While You Wait. MAP  
Sep. '46—Gem onyx field, near Las Vegas, Nevada. MAP  
Oct. '46—Augite crystals, Hopi Buttes, Arizona. MAP  
Nov. '46—Petrified stumps, Painted Desert, Arizona. MAP  
May '47—Hauser geode beds, Black Hills, Calif. MAP  
Jun. '47—Gems From a Hidden Paradise. MAP  
Jul. '47—Geodes at Searchlight, Nevada. MAP  
Aug. '47—Agate, chalcedony, Fossil sprs., Arizona. MAP  
Oct. '47—Collecting crystals, Topaz mt., Utah. MAP  
Jun. '48—Rock Hunters' Wonderland. MAP  
Jul. '48—Agate and chalcedony, Turtle mts., Calif. MAP  
Oct. '48—Ancient Beach pebbles, Colorado riv. MAP  
Nov. '48—Blue agate on the Mojave. MAP  
Dec. '48—Gem field in Cady Mts. MAP  
Feb. '49—Kyanite Crystals in Imperial County. MAP  
Mar. '49—Turquoise hunters have a field day. MAP  
Apr. '49—Geodes in the Kofa Country. MAP  
May '49—Geodes, Chalcedony, Southern Arizona. MAP  
Jun. '49—Jasper along Highway 60. MAP  
Jul. '49—Sandspikes on the border. MAP  
Aug. '49—Uranium Strike in Petrified Wood. MAP  
Sep. '49—Agate, jasper, on Devil's Highway. MAP  
Oct. '49—Fossils in Coyote Mountain. MAP  
Nov. '49—Apache Tears at Bagdad. MAP  
Dec. '49—"Lakeview Diamonds" in Oregon. MAP  
Jan. '50—In the Garnet Fields of Ely. MAP  
Feb. '50—We Followed the Lure of Carnotite. MAP

ROCK HUNTER'S SET, 30 magazines . . . \$5.00

## MAPS TO THE GHOST TOWNS . . .

Jul. '46—Ghost Town of Calico Hills. MAP  
Jun. '47—When Rawhide Roared. MAP  
Jul. '47—Gold Harvest at Aurora. MAP  
May '48—Columbus Ghost Town in Nevada. MAP  
Jan. '49—Old Fort Cummings in New Mexico. MAP  
Aug. '49—They Live in a Ghost Town. MAP

GHOST TOWN MAPPED TRIPS, 6 mags. . . \$1.00

## MAPS TO HISTORICAL PLACES . . .

Apr. '46—Long Walk of the Navajo to Ft. Sumner. MAP  
May '46—When Hawaiians Came to the Utah Desert. MAP  
May '47—Mormon Crossing at Hole-in-the-Rock. MAP  
Jul. '48—On Kino's Trail to Pozo Verde. MAP  
Jan. '49—Waterhole at the Crossroads. MAP  
Jun. '49—He Planned to Change the Desert Climate. MAP

HISTORICAL MAPPED TRIPS, 6 magazines \$1.00

Magazines may be ordered by specifying month and year only, or by sets.

THE *Desert* MAGAZINE  
PALM DESERT, CALIFORNIA

# BOOKS OF THE SOUTHWEST . . .

## WHEN UNCLE SAM BROUGHT CAMELS TO THE DESERT

Jeff Davis' folly, they called the experiment which began in 1857 when an expedition was sent to the Middle East to purchase camels for use in the Southwestern desert. The story of Uncle Sam's experience with camels is told in *Camels to California* by Harlan D. Fowler.

Gold had been discovered in California and the great rolling tide of men and supplies which surged westward needed transportation urgently. Speedy movement against raiding Indians was a necessity. Jefferson Davis, then Secretary of War, believed that the huge powerful "ships" of Middle Eastern desert lands might prove a valuable answer to some of the government's problems in dealing with the vast desert area which had been acquired in the war with Mexico. The government authorized an expedition to the Levant to purchase suitable beasts and the Navy storeship *Supply* was turned over to Davis for transporting them to America.

The story of this expedition, commanded by Lieut. D. D. Porter, with Maj. Henry C. Wayne in charge of purchasing the animals, as told by Fowler, is complete and interesting. However, before true evaluation could be placed upon the use of camels in the desert states, the march of time brought other media of transportation—roads and railroads were built, and only one experimental camel caravan under the leadership of a former lieutenant of the Navy, Edward F. Beale, paddled from Texas to California.

The camels eventually were scattered, some dying, some serving for years in far outposts, some sold to circuses. But many a fanciful desert dweller has since vowed that he has seen phantom "ships" moving silently off into far distances under an eerie white desert moon.

The camel drivers brought over from the Middle East scattered too. The most famous of them, Hadji Ali (Hi Holly), died in 1903, his grave marked by a small stone pyramid near Highway 60-70 at Quartzsite, Arizona.

Published by Stanford University Press, Stanford, California. 93 pp. 18 illus. \$3.50.

*This book may be ordered from  
Desert Crafts Shop  
Palm Desert, California*

## LIFE IN HIDALGO IS RICH IN HUMAN DRAMA

In *Mexican Village* by Josephine Niggli, life flows timelessly through Hidalgo, one of the five towns in the Sabinas Valley of northern Mexico. The tale of Hidalgo has warmth and vitality. Rarely does one find a novel containing so many intimately drawn, richly human characterizations.

The story starts with the arrival in Hidalgo of a somewhat mysterious Yanqui, Bob Webster, who is to manage the cement plant. It ends with the unfolding of his ancestry. With Bob, the reader strolls along the Avenue of Illustrious Men, meeting the four men who tacitly rule Hidalgo—Don Nacho, the big-paunched Mayor, tranquil Father Zacaya, the little Doctor and courtly Don Rosalio. There are the three eligible young blades—Pepé Gonzalez, the handsome, merry prankster, Andrés Treviño the goat owner, and Porfirio, the woodcarver. The winning of their brides makes hilarious reading. Andrés agonizingly promises his Nena the costly pair of wedding shoes she demands. But to save pesos he buys them so small that the morning of the wedding finds her furious when she cannot get them on her feet. The dilemma is solved when Andrés proves that he will be master of his own household by forcefully persuading Nena to wear them on her hands.

The patron of the village is wealthy Don Saturnino Castillo. The relationship between the Castillos and the villagers, the tragedies in that great family, are part of the pattern of Hidalgo life.

The warm, golden beauty of María de las Garzas, the outcast girl from the River Road, winds in and out like a shining thread through the lives of Bob Webster and the Castillos.

Yes, Hidalgo must surely lie dreaming eternally under the Mexican sun down in the rich Sabinas Valley, filled with drama and gaiety by its charming inhabitants.

The University of North Carolina Press, printed by Van Rees Press, New York. 491 pp. \$3.00.

## • • • STORY OF CACTUS IS TOLD BY BOTANIST

"Cacti may be recognized by the large, fleshy, usually leafless stems and by the fact that spines are produced in clusters within definite spirally-arranged areoles on the stems. This is not the case with other succulents." Thus Lyman Benson, professor of botany at Pomona, California, Col-

lege, graphically introduces the reader to cactus in his new book, *Cacti of Arizona*.

He follows with a description of the structure, juvenile forms and geographical distribution. Professor Benson's classification, with key to the genera and species, is so plainly written, the book will be found helpful by the novice as well as by professional scientists.

Most species are illustrated by line drawings or photographs. Distribution maps indicate where 60 of the most important species may be found. He ends by giving a few simple rules regarding soil, water and light requirements for growing cactus.

Lyman Benson has been interested in the desert since boyhood. His grandfather was one of the starving '48ers discovering Death Valley. A native Californian, he has trekked the desert for 20 years, collecting 14,600 plant specimens. He is the author of 30 technical articles and two book-length bulletins.

Published by the University of New Mexico Press, 1950. 134 pp. Illustrated by line drawings as well as photographs in both color and black and white. \$4.00.

*This book may be ordered from  
Desert Crafts Shop, Palm Desert, California*

Calif. Ore. Wash. Ida.  
**COUNTY MAPS**  
for Travelers, Homeseekers, Prospectors  
List and prices on request FREE

**WORLD'S MINERALS**  
2417 San Pablo Ave. Oakland 12, Calif.

## WORLDS IN THE SKY

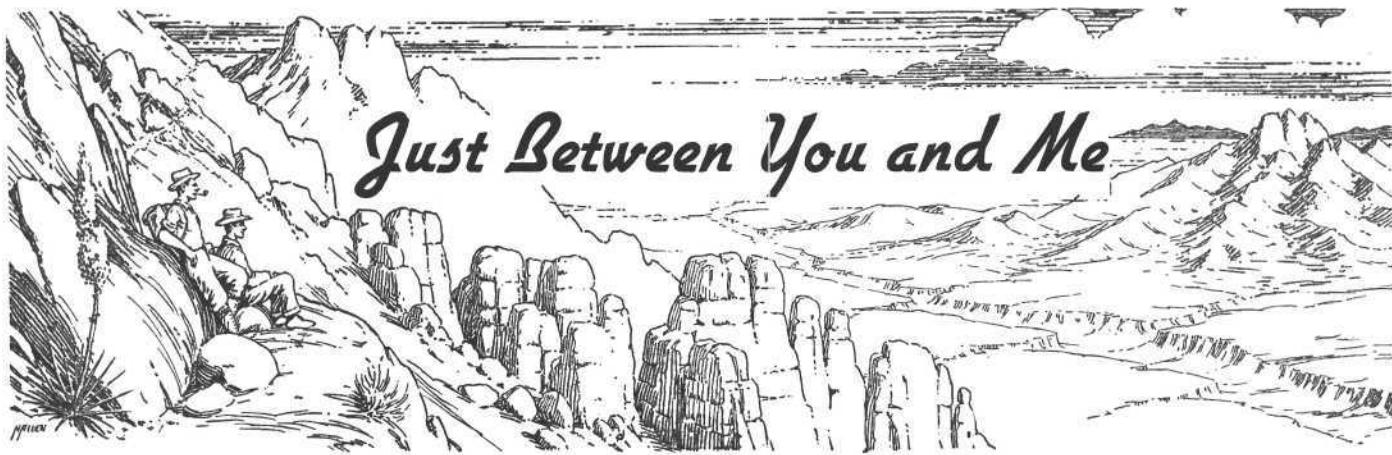
*The story of the stars, planets, and other heavenly bodies, including the one we live on.*

By CARROLL LANE FENTON and MILDRED ADAMS FENTON. An exciting book about astronomy that is really up to date. It gives fundamental facts and principles rather than legend and myth. Intended primarily for young readers, all ages will find it fascinating. Illustrated. \$2.50

By the same authors:  
**EARTH'S ADVENTURES . . . \$3.75**  
**LIFE LONG AGO . . . \$5.00**

*At all bookstores*

**THE JOHN DAY COMPANY, N.Y. 19**



By RANDALL HENDERSON

**S**OME OF my mining friends have become alarmed over recent newspaper reports that the department of Interior is conspiring secretly to make radical changes in the mining laws—changes which would be a great hardship to the prospector and small miner.

Since it is the function of Congress—not the Department of Interior—to make the laws governing mining, I thought perhaps a sensation-seeking reporter had overplayed this “conspiracy.” My investigation of the story confirmed this conclusion.

It appears that the worst sin committed by Secretary Chapman’s department was the action of a subordinate official in stamping the word “Confidential” on a report which could and should have been released to the public. The Secretary himself knew nothing about the incident until it was headlined in the newspapers as a “Grab” by his department.

To clarify this episode it is necessary to understand the conflict going on between private mining, grazing and timbering interests. The miners want—and now have, unless otherwise reserved—all surface rights to the lands which they had staked out as mining claims, even though the minerals may be far underground. Often the surface is good pasture land, or has valuable timber. The cattle-men and the timber interests would like to have the surface left open for timbering or grazing while the miners are extracting the wealth underneath.

The role of the Department of Interior is more or less that of mediator—within the limits of the laws passed by Congress.

The so-called “grab” consisted of a series of nine changes in the mining laws proposed at a conference last November at Vale, Oregon—a conference in which the grazing men predominated. Among other things they proposed that the miners be deprived of their surface rights, and that the annual assessment work required on unpatented mining claims be increased from \$100 to \$300.

Obviously, mining men would oppose such changes. Regional Director Goldy of the Bureau of Land Management in the Northwest added fuel to the fire when he sought to keep the proposals out of the newspapers by sending them out through Department of Interior channels as “Confidential.” He made the mistake of underestimating the skill of newspaper reporters, and their capacity for creating a sensation out of such a proceeding.

The present federal mining law has been in force with little change since 1866. It does need changing to correct some abuses which have developed. One of these abuses is that the law permits lumber men to obtain valuable timber land under the guise of mining claims.

Another flaw in the 85-year-old mining law is that once a claim has been staked and the filing recorded, it

is a very expensive process to get the property back into the public domain, even after it has been abandoned. A private citizen can jump a claim when the assessment work is allowed to lapse. But under the old law Uncle Sam cannot do that.

According to Paul Witmer, manager of the Los Angeles Land office, approximately 500,000 mining claims have been filed in the Southern California district since 1856—and 475,000 of them have long ago been abandoned as worthless. But before the government can restore this land to the federal domain for public park, military or other occupancy it is necessary to send an engineer to the county seat to search down the title, then assay the ground to determine whether or not it has mineral value. Then if the original claimant is dead it is necessary to go to the probate court and contact the heirs either by personal service or advertising. It costs Uncle Sam several hundred dollars to regain his title to a small bit of ground which the original claimant long ago found was quite worthless.

Obviously, in the interests of you and me—the taxpayers and owners of the public domain—this antiquated procedure should be corrected by changes in the law.

So, I would suggest to my mining friends: Protect your rights against the encroachment of the timber and grazing interests—but don’t be alarmed merely because some one wants to change the law. For it needs changing. Nor is the Department of Interior out to “grab” the rights of one person and hand them over to another. The laws are made by Congress.

The rim of mountains which surrounds the Palm Desert cove is covered with snow today. It is cold up there or the heights—but down here on the floor of the desert it is sunny and warm.

To visitors, the snow on the mountains is a pretty picture—something to exclaim about. To those of us who make our homes on the desert the white-clad hills mean something more than that. For it is from these snowbanks that much of our water supply comes. Those great drifts on the ridges above are a mammoth reservoir from which a million tiny streams of water trickle down through fractures in the rock mass beneath and eventually find their way to our homes and gardens. Without the snow which falls on the mountain-rim many of our desert communities eventually would dry up and become ghost towns.

You say we are lucky people to have the beauty of such a landscape to greet us every morning. Yes, perhaps, and we do appreciate the scenic grandeur of those snow-capped peaks, but no distant scene can compare in beauty with that which radiates from the heart of a strong gracious human being. The real beauty in life is that which is within—something each human may cultivate or allow to grow up to weeds.

# April Forecast of Desert Flowers

While the wildflower parade on the western deserts will not be lavish this year, a few blossoms are promised along many roadsides during March and April, unless hot winds and a total absence of moisture prevails. The rain that drenched parts of the Coachella Valley the latter part of February came too late to influence mass flowering. However, it will materially help cacti and shrubs that always have a few blossoms every spring regardless of precipitation. Sand verbenas, on roadsides near the Desert Magazine Pueblo, are blossoming in small patches where irrigation waters reached the seeds. This is also true of other wildflowers in a few desert areas. Following are the reports of *Desert Magazine*'s correspondents in various areas of the Southwest:

**Central Mojave Desert**—In the vicinity of Daggett, February brought only a few sprinkles, writes Mary Beal, who keeps *Desert* readers posted on her section of the desert. The surrounding areas all had showers and young plants are popping up, especially around Newberry, the lower Mojave River Valley and on the slopes toward the south. Another shower, followed by warm sunshine should bring flowers in moderate profusion the latter part of March and more in April.

**Lake Mead Recreational Area**—The additional rain and warm weather which Park Naturalist, Maurice Sullivan, hoped would bring out a lovely wildflower display has not materialized. March rains could still come and if they are reasonably heavy, it is not too late to hope Mother Nature will put on gay Easter raiment. Based on present conditions, the outlook is far from promising.

**Antelope Valley**—The wildflower outlook in the Antelope Valley is even more discouraging this month than last, according to Jane S. Pinheiro. The only rain reaching the area was a few ineffectual sprinkles. Manzanita is blossoming in the foothills. The flowers are small, though plentiful. Except where irrigation water from the fields reached wayside seeds, there isn't a poppy plant to be seen. Alfararia is very tiny and not plentiful, but a few buds are showing on the Joshua trees.

**Arizona**—The situation, with regard to moisture, has changed very little in the vicinity of Mesa, writes Julian M. King. The weather has continued mild with the result that growth is earlier than usual. Desert hyacinths are be-

ginning to appear in abundance. Other flowers are expected in March. However, no spectacular showing is anticipated.

## *Joshua Tree National Monument*

In direct reverse from last month's promising report, Frank Givens, park superintendent, writes from Twenty-nine Palms, that prospects for a lavish wildflower display are fading. There has been no rain since the soaking precipitation during the latter part of January. If there should be several good rains during March, a fair blossoming period may be expected. Based on current conditions, no mass blooming is in sight, although flower lovers will find a few of the faithful in favorable locations.

**Nevada**—Southern Nevada has not received the badly needed rain that has been hoped for. As a result the desert's Easter gown will be somber in that section. Dora Tucker, correspondent from Las Vegas writes: "I am sorry to report we will have few wildflowers this spring. Should we receive a heavy rain the seeds will sprout, come up and blossom as they did last August. However, it is not likely the sage and burro brush, the desert holly, cacti and yucca will make a lavish showing. A few encelia and shooting stars are flowering in the canyons next to the lake, a scattering of primroses, paint brush and mallows along the highways and in the washes near the foothills, but the outlook for a real floral display is discouraging."

## *Death Valley National Monument*

Although there are a few wildflowers blossoming in widely scattered areas where scarce rainfall collected, visitors to Death Valley this year will not see the colorful carpets that sometimes cover the sand dunes. According to T. R. Goodwin, monument superintendent, those who come should not expect an extensive display.

## *Casa Grande National Monument*

A. T. Bicknell, monument superintendent, reporting from Coolidge, Arizona, writes there has been almost two inches of rain since his late January report. It is not enough, he goes on to say, to correct the effects of the prolonged drouth from which the area has been suffering. Therefore he does not anticipate any great blossoming season, but those plants and cacti that flower will do so early. Another rain within the next two weeks will bring out blossoms in the foothills.

**COMPARE ANYWHERE**

**PREMIUM FIBER GLASS DEEP SEA RODS**  
2 PIECE BREAK AWAY 25" CLOSE GRAIN HARD WOOD BUTT AND FORE-  
5 GUIDES AND TIP OF STAINLESS STEEL SILVER SOLDERED  
HARD CHROME ON BRASS ADJUSTABLE LOCKING REEL SEAT  
GUIDES NYLON WRAPPED LIVE RUBBER BUTT CAP

**SOLID FIBER GLASS 2 PC. CASTING ROD. 5 1/2 ft.**

**\$14.95**

**\$5.95**

**8 1/2 ft. TUBULAR GLASS 2 PC. FLY ROD.**

**\$13.95**

**3 PC. SPLIT BAMBOO 8 1/2 ft. FLY ROD**

**6.95**

**WITH EXTRA TIP \$8.95**

MAIL ORDER... ADD 3 1/2% SALES TAX

**BRADLEY REHRIG**

99 EAST COLORADO PASADENA  
SANTA ANA 406 W. FOURTH RIVERSIDE 4022 MAIN ST. 1115 VAN NESS  
FRESNO SAN BERNARDINO 371 FOURTH ST.

THE BRITISH  
**ALLARD**

**J-2**

ONE OF THE WORLD'S FINEST SPORTS CARS.

E. ALAN MOSS, WESTERN DISTRIBUTOR  
FOR ALLARD, SAYS, "I RECOMMEND  
TRITON MOTOR OIL BECAUSE IT  
GIVES EXTRA PROTECTION TO  
PRECISION-BUILT ENGINES."

LONGER-LASTING TRITON GIVES YOU AN  
**EXTRA MARGIN OF SAFETY!**



### WHY DOES TRITON **LAST LONGER?**

A PURE, RICH 100% PARAFFIN-BASE  
STOCK GIVES TRITON ITS BASIC DURABILITY.  
TO THIS STOCK ARE ADDED SPECIAL COM-  
POUNDS THAT RETARD ACIDITY, SLUDGING  
AND CORROSION AND CLEAN YOUR ENGINE  
AS YOU DRIVE. THIS COMBINATION PRODUCES

A MOTOR OIL THAT LASTS  
LONG AFTER MOST OILS  
ARE RECOMMENDED  
FOR CHANGING.



WON'T THE  
OIL GET  
**DIRTY?**

  
THE ALLARD J-2 HAS BEEN A  
STAND-OUT IN EUROPE'S INTERNATIONAL  
ROAD RACES. IN THE U.S. THIS CAR WON  
THE 1950 WATKINS GLEN AND BRIDGE-  
HAMPTON ROAD RACES. IN THE WEST  
THE ALLARD J-2 WAS THE WINNER  
OF THE 1950 AAA SANTA ANA  
ROAD RACE. THIS SLEEK  
SPORTS CAR IS CAPABLE OF  
SPEEDS IN EXCESS OF  
130 MPH.

WITH TRITON, DARK OIL MEANS A CLEANER MOTOR! TRITON'S  
DETERGENT COMPOUND CLEANS YOUR ENGINE, HOLDS  
LOOSENED DIRT AND SLUDGE HARMLESSLY IN SUSPENSION.



### WHAT IS TRITON'S **EXTRA MARGIN OF SAFETY?**

TRITON LASTS FAR LONGER THAN 1,000  
MILES. THIS RESERVE STRENGTH GIVES  
A NEW LUBRICATING SAFETY MARGIN  
TO NEW AND OLD CARS ALIKE.

**UNION OIL COMPANY**  
OF CALIFORNIA